TENNESSEE VALLEY AUTHORITY

KNOXVILLE, TENNESSEE 37902

'JUL 1 2 1989

Mr. J. Wayne Cropp Chattanooga-Hamilton County Air Pollution Control Bureau 3511 Rossville Boulevard Chattanooga, Tennessee 37407

Dear Mr. Cropp:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT (SQN) - PERMIT APPLICATIONS FOR EXISTING AIR POLLUTION SOURCES - SUPPLEMENTAL DATA

REFERENCE: LETTER, STEVEN T. COLWELL TO DALE V. WILHELM, APRIL 27, 1989

The following information is provided in response to the referenced letter which requests additional information regarding the permit applications submitted with my March 1 letter. We apologize for the lateness of this response, but your incoming letter was misrouted in TVA and was not received by my staff until April 27. The responses are numbered to correspond with the items in the referenced letter.

- 1. Modifications Carpenter Shop Woodworking Equipment with Transfer System and Storage Bin
 - a. The estimated volume of gas discharged from GCE at dry standard conditions is 3800 cubic feet per minute. This estimate is based on the manufacturer's data given in Enclosure 1. The fan is powered by a 1-horsepower motor operating at 1735 revolutions per minute.
 - b. A sketch of the storage bin is given in Enclosure 2.
- 2. Modifications Carpenter Shop Radial Arm Saw Served by Small Dust Collector
 - a. Input process rate is estimated to be 75 percent of the lumber going through the shop. The shop process rate is 450 pounds per hour: therefore, input process rate is approximately 340 pounds per hour.
 - b. The pressure drop across the baghouse has not been measured; however, the manufacturer stated it to be 4.5 inches of water. A copy of the vendored provided specifications is given in Enclosure 3.
 - c. The baghouse filter fabric type is woven.

Cool 1/1

- 5. Service Building Paint Spray Booth Wash Water Curtain
 - a. The dilution ratio used for determining the applied coating reported on the E010B form was 99 parts coating to 1 part thinner. Form E010B was included as a typical coating applied. Revised E010B forms for those coatings actually applied during the last year are given in Enclosure 4.
 - b. A Material Safety Data Sheet (MSDS) for the thinner specified on the E010B form submitted earlier is not provided since revised E010B forms are being submitted.
 - c. The usage data and MSDS for the coatings and thinners used for this source for the past year are given in Enclosure 4.

7. Hydrazine Tank Vent

- a. The tank was installed as part of the original plant equipment sometime around 1975.
- b. A copy of the E106 form for hydrazine that was used to determine the uncontrolled emission values in Item 7 of the E104 form is given in Enclosure 5.

8. Ammonia Tank Vent

- a. The tank was installed as part of the original plant equipment sometime around 1975.
- b. A copy of the E106 form for ammonia that was used to determine the uncontrolled emission values in Item 7 of the E104 form is given in Enclosure 6.
- 9. Construction Sandblast and Paint Shop with Two Building Roof Exhausters
 - a. The process weight (item 12, E001 form) is estimated to be 600 gallons per year (2.3 gallons per day) of coatings and thinners and 3960 pounds per day of black beauty (grit used in sandblasting).
 - b. The usage data and MSDS for all coatings and thinners used for this source for the past year are given in Enclosure 7. Revised E010B forms for those coatings actually applied during the last year are also given in Enclosure 7. Also included is a revised form E106 that more accurately reflects the uncontrolled pollutant emission rate.
 - c. Attachment 1 referenced in the E106 form for this facility is given in Enclosure 8.

- 10. Unit 1 Lubricating Oil System Vapor Extractor Vents (4 Vents)
 - a. We do not believe that individual permit applications and associated forms for vapor extractor should be required. We view the lubricating oil system as one system and the four vents as a group of identical (in the sense that they perform the same function) sets of equipment that have a common feed. Therefore, we request that you reconsider your request that individual permit applications be submitted for each vapor extractor.
 - b. Drawings of the lubricating oil system, the vapor extractor and the mist eliminator are given in Enclosure 9.
- 11. Unit 2 Lubricating Oil System Vapor Extractor Vents (4 Vents)
 - a. The comments and information provided in item 10 for Unit 1 also apply to the Unit 2 system.

If you or your staff have any questions or comments regarding this information, please contact Dale V. Wilhelm at (615) 632-6693 in Knoxville.

Sincerely,

M. Paul Schmierbach, Manager Environmental Quality

Enclosures cc (Enclosures):

Ms. S. C. Black, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects
United States Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. F. R. McCoy, Assistant Director for Inspection Programs TVA Projects Division United States Nuclear Regulatory Commission Region II 101 Marietta Street, NW. Suite 2900 Atlanta, Georgia 30323 Sequoyah Resident Inspector Sequoyah Nuclear Plant 2600 Igou Ferry Road Soddy Daisy, Tennessee 37379

United States Nuclear Regulatory Commission Attention: Document Control Desk

ENCLOSURE 1

GAS DISCHARGE CURVE FOR BLOWER ON DUST COLLECTION SYSTEM FOR MODIFICATIONS CARPENTER SHOP WOODWORKING EQUIPMENT



CHAMPION DESIGN ELEVEN CENTRIFUGAL FA

- 21-7/16" WHEEL DIA TIP SPEED (FPM) - 5.61xRPM

INLET AREA - 3.43 Sq. Ft.
OUTLET AREA - 2.30 Sq. Ft.

MAX. BHP - .957 (RPM)

CLASS MAX

1

11 (55)

111

16,500 10,000 13,500

TIP SPEED XAM

RPM

1,783 2,406

2,941

CENT	die	1/4 S	P	3/8	SP	1/2	SP	5/8	SP	3/4	SP	7/8	SP	1	SP	11/4	SP	11/2	\$P
OFIVE	UV	RPM B	НР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР	RPM	ВНР
1640 2300 2760	800 1000 1200	569	·11 ·16 ·23	551 616 688	.15 .21 .29	599 659 727		643 701 765	.25	666 739 800	.30 .38 .48	775 835	.64	810 866	.50		.76	986	.91
3220 3680 4140	1400 1600 1800	808	.32	763 840 920	.39	800 875 952	.59	834 907 963	.53 .67	867 939 1011	.60			988	. 91	1049	.91 1.08 1.29		1.27
4600 5060 5520	2000 2200 2400	969 .058 1140 1	. 96	1084	.65 1.06 1.31	1113	.94 1.17 1.43	1136	1.03	1164	1.13 1.37 1.65	1191	1.22			1260	1.52	1233 1304 1377	2.02
5960 60* 69.	2600 2800 3000	1227 1 1314 1 1402 2	. 63	1251		1276 1850 1443		1383	1.86 2.21 2.61	1324 1407 1467		1427	2.09 2.48 2.92		2.60	1488	2.48 2.87 3.31	1527	3.14
7360 7820 6260	3200 3400 3600	1490 2 1579 3 1668 3	. 15	1509 1597 1684	3.28	1615	2.92 3.43 3.99	1633	3.06 3.57 4.15		3.21 3.73 4.31	1672	3.38	1691	4.07	1646 1726	4.39	1760	

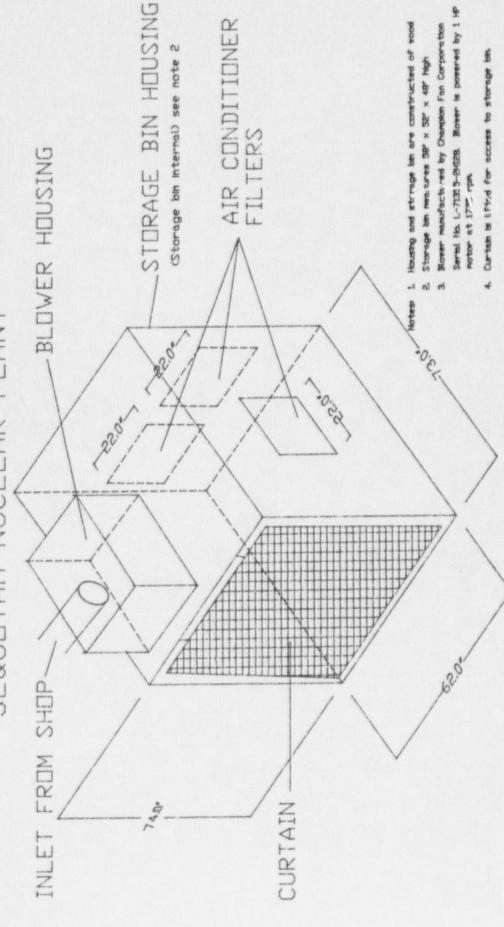
CERAS	OV	13/4 SP	2 SP	21/2 SP	3 SP	31/2 SP	4 SP	41/2 SP	5 SP	51/2 SP
CFM.	UV	RPM BHP	RPM BHP	RPM 8HP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
3680	1600	1152 1.45	1198 1.63		1373 2.44					
4600	2000	1212 1.67	1319 2.15	1342 2.30	1478 3.08	1550 3.55	1577 3.67	1691 4.57	1761 5.11	anner di Atendi tres
5060	2200	1345 2.24	1389 2.48	1463 2,94	1540 3,46	1609 3.97	1676 4.49	1791 5401	A	
5520	2400	1490 2.98	1528 3.24	1531 3.34	1600 3.85	1671 4.41	1736 4.08			11
6440	2800		1600 3.69		1735 4.83	1707 5.25	1837, 8000	Mat.		
6900	3000	1640 3.90	1673 A.18 1750 A.7A	1744 4.81	1803 5.37		1924 6 83.	到1943级的了 数		2012/01/07
		17 7 4 4 - 51 02	of these and a state	100 g 2 k 0 to 120	1950 6.69	4.	2060,8.02	DE CONTRACTOR	2167 9 4 4	2215 1011
7620 6260	3600	148X285.60	1908 35 NOT	1966 6,71	2022 7.39	2081 8.16	2132 8.84	2183, 9.55	2236 1043	2286 34.1
8740	3800	1053.6.38	HATCH TOTAL	The first is	2097 8,19	2152 8.94	2209 9.77	2255 10.4	71 P	2333 112-0
9200	4000	21761 84 06	2062 7.53		2176 9.09		2351-1146		2651 13.3	2492 14.1
10120	6600			2277 10-1	2329 11.0	2382 11.9	2426 12.6	2473 13.5	2521 14.4	2568 15.3

0511	OU	6 SP	61/2 SP	7 SP	8 SP	9 SP	10 SP	11 SP	12 SP	13 SP
CFM	OV.	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP	RPM BHP
5520 5960 6440 6900 7360 8240 8740 9660 10120		7 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		2425 13.4 2487 10.4 2556 15.5 2626 16.7	#240,10,5 #185,11,3 2118,12-1 2136,12-1 2136,12-1 257,18-1 257,18-1 257,8-1 2639,17-2 27,06-1 27,78-1 27,78-1	2305 12.8 2432 13.6 2485 14.6 2543 15.6 2604 16.8 2604 17.9 2726 19.1	2573 16.2 2627 17.2 2665 18.4 2747 19.7 2806 20.9 2869 22.3	2660 17.8 2711 19.0 2765 20.1 2623 21.4	2792 20.6	2875 22.4
10500 11040 11500 11960	4600	2684 17.5 2755 10.6 2826 20.2	2722 18.3	2761 19.2	2843 21.2	2922 23.2				

ENCLOSURE 2

SKETCH OF STORAGE BIN FOR MODIFICATIONS CARPENTER SHOP WOODWORKING EQUIPMENT

DUST COLLECTION AND STORAGE BIN FOR MODIFICATIONS CARPENTER SHOP WOODWORKING EQUIPMENT ASEQUOYAH NUCLEAR PLANT



ENCLOSURE 3

SPECIFICATIONS FOR DUST COLLECTION SYSTEM
FOR THE MODIFICATIONS CARPENTER SHOP RADIAL ARM SAW

deal for

- emoving Sawausia Walaa c

A High Quality, Industrial Collector Pov



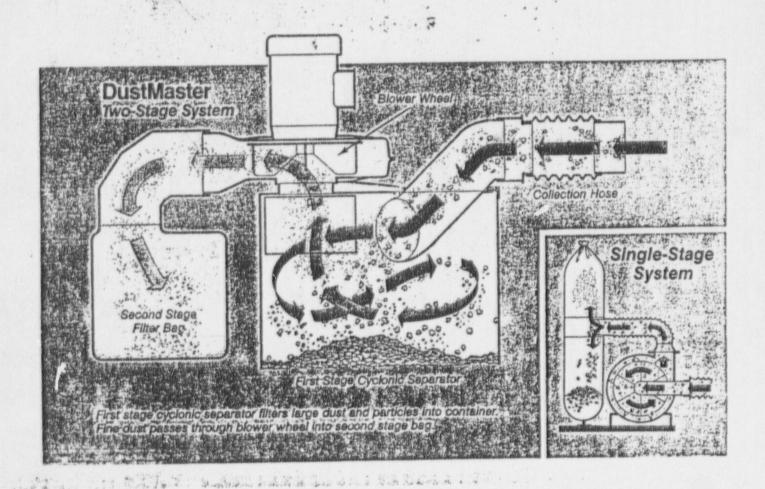
The DustMaster is ready to help keep your work environment cleaner than ever before. More than a simple vacuum, the DustMaster's power actually captures dust and particles as they're produced, at the work station.

DustMaster's two-stage cyclonic design makes it superior to single-stage collectors. Chips and heavier particles drop to the bottom of the drum while lighter particles are trapped in the attached dust/filter bag. The results...a cleaner shop and a healthier environment.

With up to ten times more air flow power than industrial vacuums, the DustMaster has plent; of power to handle any job. Also, since it's available in several motor sizes, there's one to meet your specific needs.

Winning Design Features

- Powerful. Up to ten times the ability to draw in dust than a heavy-duty shop vacuum.
- Durable. Made in the U.S.A. Heavy-duty fiberglass drum lid and 14-gauge steel blower housing.*
- Industrial duty motor.
 Designed to perform a minimum of eight years
 under continual, heavy-duty use; years longer with normal use.
- Portable. Easily moved from one job to another.



ideal for emoving:

- awdust *l*ðod C

- stic Shavings
- Shreds
- **Particles**
- Leather Scraps Rubber Buffings

A High Quality, Industrial Collector Pov



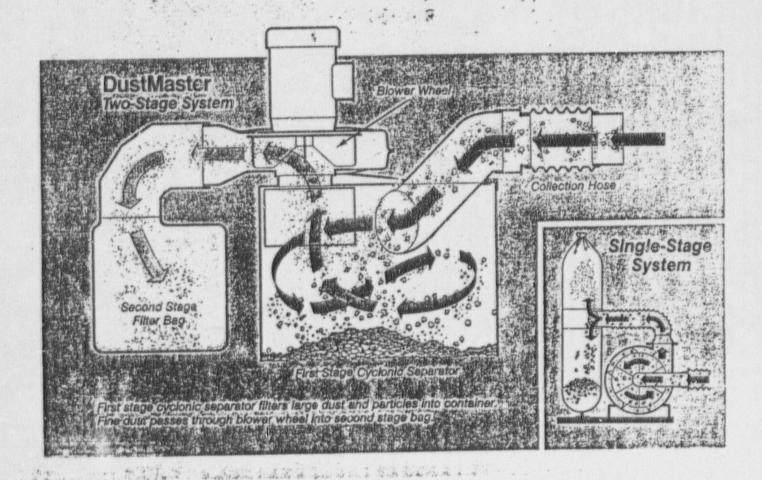
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Dust Collector

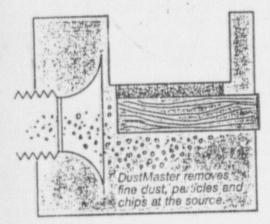
ful Enough For Your Needs

Removes Waste at the Source

The DustMaster removes fine dust, particles and chips at the source, before they get into the air or on the floor. Powered by a high-performance, heavy-duty industrial motor, jobs are done quickly, quietly.

It's efficient. The selfcleaning, cast aluminum radial blade blower draws in the smallest chips and dust. The permanently lubricated, ball bearing motor is totally enclosed and fan-cooled. It's safe because there are no exposed moving parts.

The result is a cleaner working environment. The DustMaster gets waste as it's being made, not after the job is done.



More Power, More Capacity

Efficient dust collection requires high air velocity around the tool. Government and industry officials have established recommendations for minimum air flow.

in cubic feet per minute (CFM) needed to keep the environment clean.

The minimum air flow for most tools is 300-700 CFM.

- Home vacuums provide 100 CFM.
- Industrial vacuums can supply up to 120 CFM.
- The DustMaster supplies 350-1100 CFM, many times the power of the heaviest duty industrial vacuum.

Shop vacuums can't match the DustMaster's collection volume either. Mounting on a 55-gallon, open-top drum* provides ample waste capacity. Final air filtration area is twenty square feet; cotton duck filter bag is equipped with a zippered clean-out.

The hoses are also designed for maximum efficiency. While shop vacuums use small diameter hose that can easily clog, the DustMaster's

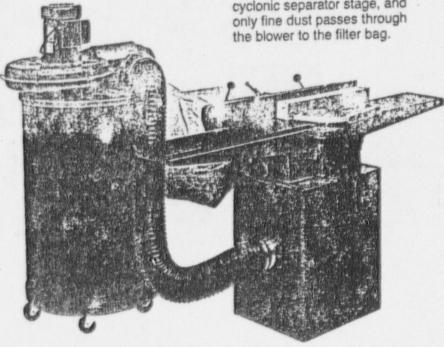
heavy-duty, wire-reinforced hoses—available up to 6" in diar eter—accommodate even the largest chips. The DustMaster outperforms the largest industrial vacuum cleaner, and its two-stage design makes it superior to single-stage collectors.

Two-Stage System More Durable, Efficient

The two-stage system is more durable, efficient and safer than competitive single-stage collector systems.

Single-stage collectors draw dust-laden air directly into the blower, where contact with grit and particles causes rapid wear to the wheel and housing. Sparks can also occur, providing an increased fire potential.

By contrast, the DustMaster two-stage system separates all the large, abrasive particles out of the air stream in the cyclonic separator stage, and only fine dust passes through the blower to the filter bag.



Pick The Power You Need

The DustMaster's many sizes are well-suited for industrial and commercial applications. A complete line of nozzles, fittings and hoses makes it flexible enough for many varied operations.

Typical Applications of DustMaster

Machine And	Dust C	ollector Ho	rsepower	Ratings
Required CFM Range	1/3	1/2	1	2
Table/Band Saw 70u-1100 CFM		need:	X	X
Bell/Disc Sander 700-1100 CFM			X	X
Jointer 300-800 CFM	X	X	X	X
Grinder 200-1100 CFM	X	X	X	X
Foundry Mixer 700-1100 CFM	-		Х	X
Bag Filling 400-1100 CFM	-	X	X	X
butting/Polishing 300-1100 CFM	X	X	×	X
Stone Cutting 500-800 CFM	-		X	X
Laboratory Equipment 300-1100 CFM	X	X	X	X

NNFPA standards require specific duct design and dust collector configuration when collecting sturminum or magnesium dust. Consult current NFPA — idards before selecting a dust collector and/or duct design for aluminum or mugnesium.



Note: Orum and drum dolly are not supplied with the DustMaster

Five Models Available

Complete dust collectors with permanently lubricated, ball bearing, continuous-duty, TEFC motor, dust bag and five-foot hose.

Model	338	508	1008	1005	2005
Stock No.	12726	12967	12863	12864	32002
Motor	WHP.1PH	12HP, 1PH	1HP,1PH	1HP,3PH	2HP,3PH
RPM	3450	3450	3450	3450	3450
Mator Voltage	115/208-230	115/208-230	115/208-230	208-220/440	208-220/440
HZ and Low Voltage Amps	60-7.6	60-7.6	60-12.0	60-3.2	bu 4
Max. Static Pressure	3" WG	7" WG	4W WG	41/2" WG .	. 814" WG
Max. CFM	355	450	700	700	1100
Max. Hose Velocity, FPM	7230	5155	5120	5130	5600
dBA @ 511.	76	78	83	83	85
Hose Size	3°x60"	4"x60"	5"x60"	5"x60"	6"x60"
Drum Lid Dia.	20"	20"	24"	24"	24"
Drum Siza (not included)	20-24 Gal.	20-24 Gal.	55 Gal.	55 Gal.	55 Gal.
Ship Wt., Ibs.	43	51	73	65	81
Electrical Hookup	Wired for 115V; 8' cord set and switch	Wired for 115V; 8' cord set and switch	Wired for 115V; 8' cord set and switch	Supplied ready for wiring into 220/460 source	Supplied ready for wiring into 220/460 source

Quality DustMaster Accessories

Dust Bag: A 20 sq. ft. filtration area cotton duck filter bag comes with the DustMaster.

Nozzles: A front intake nozzle and a side intake nozzle come with the DustMaster.

Hose Kits (optional): Four hose kits are available. Hose kits contain one hose, two clamps and one tubular steel connector sleeve. Use for extending hose or replacing original hose.

Hose Size	Model	Stock No.	Shipping Wt.
3"x60"	HK 3	1Z891	1.6 lbs.
4"x60"	HK 4	1Z890	2.2 lbs.
5"x60"	HK 5	2Z061	2.5 lbs.
6"x60"	HK 6	2W449	2.8 lbs.



USAGE DATA AND MATERIAL SAFETY DATA SHEETS
FOR COATINGS AND THINNERS USED
IN THE SERVICE BUILDING PAINT SHOP

LISTING OF COATINGS AND THINNERS USED IN THE SERVICE BUILDING PAINT SHOP

PRODUCT	QUANTITY USED
Warren Maintenance and Machinery Enamel Benjamin Moore Satin Finish Varnish Benjamin Moore Sanding Sealer Benjamin Moore Walnut Stain Phenoline Thinner Phenoline 305 Paint Carboline Thinner Carboline Zinc Primer Sherwin Williams Industrial Enamel Sherwin Williams Red Oxide Primer	2 gallons 3 gallons 3 gallons 3 gallons 1 gallon 1.5 gallons 1 gallon 1.5 gallons 4 gallons 5 gallons
Sign Painting Lettering Enamel One Shot Black Red Blue Green Gold Gum turpentine	3 quarts 2 quarts 2 quarts 1 quart 1 quart 3 gallons

Note: Material Safety Data Sheets are attached.

COATING/THINNER DATA FORM

COMPANY NAME: SEQUOYAH NUCLOUR PLANT TENNESSEE VALLEY AUTHORITY
Applicable APCB Certificate #: (SERVICE BLDG PAINT SPRAY BOOTH)
Product Name: " SHOT" (R) LETTERING ENAMEL
Product Manufacturer: LONSUMERS PAINT FACTORY, INC
Product Manufacturer: LONDVMERS IDINI FACTOR I AND
Usage Data
Daily (gal/day): 0.009
Annual (gal/yr): 2.25
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTACHED MSDS
As Received (Concentrated):
Density (lbs/gal):
Solids % by Weight: 40 % by Volume: 65
voc % by Weight: 60 % by Volume: 35
Water % by Weight: NA % by Volume:
As Applied (Diluted): SAME AS A BOXE
Density (lbs/gal):
Solids % by Weight: % by Volume:
Voc % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thirner Data
Chemical Composition:
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. YesNo
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: MANGER OF GWRONMENTEL QUALITY 11/03/89

RMP

Occupational Safety and Health Acministration HMC 1641 MATERIAL SAFETY DATA SHEET

SECTION 1

Manufacturer's Name

Consumers Paint Factory, Inc.

Address (Number, Street, City, State and Zip Code)

P.O. Box 6398, Gary Indiana 46406

Chemical Name and Synonyms

NIA

Chemical Family

Paints and Coatings

Emergency Telephone No. 219-949-1684

Trace Names and Synonyms "I Shot" (R) Lettering Enamel

Formula

N/A

SECTION II - HAZARDOUS INGREDIENTS

See Table I, Section II Attached

SECTION III - PHYSICAL DATA

Note: Data Herein (except % Vol.) for solvent portion only

Boiling Point (oF.) Vapor Pr re (mm Hg.)

Vapor Density (AIR=1)

Solubility in Water

246-385 2-15

Specific Gravity (H20=1) Percent Volatile by Vol. (%) Evaporation Rate (Ether = 1)

.74 - .89 25% - 35% 9 - 70

3.8 - 4.9 ins. Water white and characteristic petroleum odor.

F.ammable Limits

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (method used)

Pensky-Martens closed tester: 840 - 1100 F Extinguishing Media Carbon dioxide or dry chemical

N.E.

Special Fire Fighting Procedures:

Water spray may be ineffective. Water spray should be used to coo! containers exposed to fire. Do not enter the fire area without proper protective equipment, including self-contained breathing apparatus.

Unusua Fire and Explosion Hazards:

Avoid source of ignition, flame, static electricity, heat, electrical spark.

SECTION . - DEALTH MATA

Thresh: & Limit Value See Tatle 1, Section II. Effects of Overexposure See Table 2, Section V

Emergency and First A.d Procedures

See Table 2, Section V

Form OSHA-11

50 C 1541

SECTION VI - REACTIVITY DATA

Stability

Linstable

Stable

Conditions to Avoid Excessive Heat

Incompatibility (Materials to Avoid)

None

Hazardous Decomposition Products CO, NOx, Lead, Chromium Fume

Hazardous Polymerization May Occur

Conditions to Avoid

Will Not Occur X

SECTION VII - SPILL OR LEAK PROCEDURES

Steps To Be Taken in Case Material Is Released Or Spilled Eliminate all heat sources, open flames, and other sources of ignition. Absorb with solid absorbent. Shovel into containers. If large quantities are spilled, personal protective equipment may be required.

Waste Disposal Method

Dispose as paint waste in accordance with Federal, State, and local regulations.

SECTION VIII - SPECIAL PROTECTIC INFORMATION

Respiratory Protection (specify type)

Organic vapor respirator with particulate filter approved by NIOSH.

Ventilation

Local Exhaust

Preferred - Paint Spray Booth, 150 fpm face velocity

Mechanical (general)

Acceptable for small volume applications

Special

None Othe: None

Eve Protection Spectacles with side shields.

Protective Gloves Butyl rubber or equivalent Other Protective Equipment None

SECTION IX - SPECIAL PRECAUTIONS

Precautions To Be Taker In Handling and Storing Keep container closed when not in use. See labels for normal handling caution.

Handle carefully in accordance with hazardous properties of flammable liquids as suggested by Other Precautions the National Fire Protection Association. Liability is expressly disclaimed for any loss or injury arising our of the use of this information or the use of any materials designated.

National Paint and Coatings Association Hazardous Material Information System

Table 2 Section V Health Hazard Data

Effects of Overexposure

May cause dizziness, giddiness, narcosis, central nervous system depression.

Prolonged overexposure to solvents may cause kidney, liver, and other systemic damage.

Recent reports indicate that prolonged exposure to solvents at moderate levels may affect higher brain functions and mental capacity.

Lead may cause liver, central nervous system and systemic effects on the blood and blood-forming organs after high, prolonged exposure.

Exposure to airborne concentrations of chromates has been associated with lung cancer. Prolonged exposure to high concentrations can cause perforation of the nasal septa.

Emergency and First Aid Procedures

If overcome by vapors, remove to fresh air. If not breathing, restore breathing. Get medical help or a physician immediately.

If ingested, do not induce vomiting. Get medical help or a physician immediately.

Eye Contact: Flush with large quantities of water for 15 minutes. Get medical help or a physician immediately.

Skin Contact: Remove excess material with paper towels or rags. Wash with mild soap and warm water. If any redness or swelling persists, get medical attention.

TABLE

		SEC	TION II,	HAZAR	SECTION II, "HAZARDOUS INGREDIENTS"	REDIEN	LS.					
ante als	Chemical Abstract Services Number	t TLV	NOIL X	102L 102L %	1 102L 104L 102 11	108L	114L %	124L %	130f. %	13.3. %	1.84 1.84	142L %
in Solid.	M.C.	*	30 40	09-08	30-40	10 40	04-08	111 40	07.08	- 9	05 111	05 08
eral Spirits	3032-32-4	100 ppm	20-30	30-40	30-40	30-40	20-30	20-30	20-30	20-30	20-30	30-40
matic Naphtha	088-30-306	100 ppm***	5-10	1-5	1-5	1	5-10	1-5	1-5	2-10	(-1	1-5
diagic Acids	68-037-38-7	×.E.	1-1.		1-1.	1-1-		7			1-1-1	7
thyl Lthyl oxime	1-67-96	×.	=	=	Ξ.	=	=	=	=	**************************************	=	= '
dryl Alcohol	1-95-79	200 ppm	-:	1	1	;		-: =	-: ::	1.1	1.1	1
inents	7440-48-4	0.1 mg/m ³	Ξ.	1.11	1.11	-1-	=	=	= =	1.11	-: -:	1.1
(Lead)	M.C.	.05 mg/m ³	.I-I.	5-10	5-10		1-5	10-20	20-30	20-30	20-30	5-10
omates CrO ₃	M.C.	.1 mg/m3	1	1-5	1-5.	1	<u></u> :	5-10	5-10	1-5	1-5	1-5
anium Dioxide	13463-67-7	15 mg/m ³ ND**	40-50	1	1	1	1-5	-	9-10	1-5	Ξ.	5-10
ments (N.O.S)	M.C.	N.E.	1	1	10-20	10-20	5-10	1	5-10	5-10	5-10	1-5

not Established

I.D. = Nuisance Dust

PEL (Permissible Exposure Limit - TLV Not Established)

).5. = Not Otherwise Specified. These are not believed to be hazardous ingredients under 29 CFR 1916.1260.

less than

C. = Multiple Components, some of which are claimed trade secret by our supplier.

SECTION II, "TIAZARDOUS INGREDIENTS" "I Shot" Lettering Enamels TABLE !

Chemicals	Chemical Abstract Services Number	TLV	1441	(Continued) [48L 150L % %	150L %	152L %	% 136L	158L %	X 162L %	1911 8	1931.	\$199L %
Resin Solids	, M.C.	*. IJ.	40-50	40-50	40-50	40-50	49-50	40-50	40-50	30-40	5-10	40-50
Solvents Mineral Spirits	8012.12-4	100 ppm	10-40	30 40	30 40	04 04	10 40	06 04	30-40	20 30	05 04	04, 04
Aromatic Naphtha	603-30-306	100 ppm***	5-10	2-10	1-5	1-5	5-10	1	5-10	1-5	1	1
Additives Aliphatic Acids	68-037-38-7	×. E. X	.1-1	I-I.		I-I.	1-5	1-1.	1-5	1-1.		1-5
Methyl Ethyl Ketoxime	1-67-96	*. Ľ	-1.		Ξ.	1	T-1.		Ξ.			= :
Methyi Alcohol	1-96-19	200 ppm	11.1	H	1.1	1	1. #	1	1		1	-
Pigments	7440-48-4	0.1 mg/m3		H	= =	Ξ.	1.1	=======================================	11.11	=	=	=
Pb (Lead)	M.C.	.05 mg/m ³	5-10	5-10	Ξ		1-5		1-5	5-10	1	1-5
Chromates CrO3	M.C.	.1 mg/m ³	1-5	1	1	1	1	1	1-5	1	1	
Titenium Dioxide	le 13:63-67-7	15 mg/m ³ ND**	5-10	1-5	1	5-10	10-20	1-5	1-5	-2	10-20	1
Pigments (N.O.S.)	5.) M.C.	N.E.	5-10	5-10	√ - ************************************	1-5	1-5	10-20	5-10	5-10	1	5-10

*Not Established

**N.D. = Nuisance Dust

pacified. These are not believed to be hazardous ingredients under 29 CFR 1910.1200. are Limit - TLV Not Established) ***PEL (Permissible E)

N.O.S. = Not Otherwise

M.C. = Multiple Companies, some of which are claimed trade secret by our supplier. It = less than

Page (5)

COATING/THINNER DATA FORM

Company Name: SEQUOYAH NUCLOR	PLANT TENNESSEE VALLEY AUTHORITY
Applicable APCB Certificate 1: (SERVICE	BIN PAUT SORAN BONTH)
Product Name: PRIMER PAINT, RED	
Product Manufacturer: THE SHERWIN-	- WILLIAMS 6
Usage Data	
Daily (gal/day): 0.019	
Annual (gal/yr):5	
Rule 25.43 & 25.44	
Analysis or Manufacturers Certificati	on Data*: SEE ATTACHED MSDS
As Received (Concentrated):	
Density (lbs/gal): 9.62	
Solids % by Weight: 60	
voc % by Weight: 40	% by Volume: 62.4
Water % by Weight: NA	% by Volume:
As Applied (Diluted): SAME AS AB	OVE
Density (lbs/gal):	t by Volume:
Solids % by Weight:	% by Volume:
Voc % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data	
Chemical Composition: NA	
Density (lbs/gal):	
Mfr. Data Sheet or Certification is a	ttached. YesNo
*For NSPS Sources Method 24 must be used	
Tit	re: Manager of GWIRONMENTEL CURLING
11/03/89	

RMP

E61 R C21

17

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor 'Essentially Similar' to form OSHA-20)

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY

101 Prospect Avenue N.W.

Cleveland, Ohio 44115

DATE OF PREPARATION

6-Aus-86

EMERGENCY TELEPHONE NO. (216) 566-2917

INFORMATION TELEPHONE NO.

(216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER

E61 R C21

PRODUCT NAME

Primer Paint, Red Oxide

PRODUCT CLASS

Alkyd Paint

* - Trade Mark

CAS No. INGREDIENT		% by WEIGHT	ACGIH-TLV	OSHA-PEL	UNITS	V.P.
64742-48-9 V. M. & F. 64742-47-8 Mineral Spi 11103-86-9 Potassium Z	rits.	40 <5 <0.5	300 100 0.05	500	PPM PPM Ms/M3	12.0

Chromium VI (as Cr)

0.02 0.05

Ms/H3

Section III -- PHYSICAL DATA

EVAPORATION RATE -- Slower than Ether BOILING RANGE (F) % VOLATILE VOLUME

VAPOR DENSITY -- Heavier than Air

WT/GAL

240 - 395

67.4

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 50 F PMCC LEL

RED LABEL -- Flammable, Flash below 100 F

EXTINGUISHING MEDIA

Carbon Dioxide, Bry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keer containers tightly closed. Isolate from heat: electrical equipment, smarks, and oren flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. Buring emprennes conditions overexposure to decomposition products may cause a health hazard. Sumptoms may not be immediately apparent. Objain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including sear-contained broathing arrandus should be used. Water spraw way be ineffective. If water is used, for nozzles are preferable. Water way be used to cool closed containers to recent prospure build-up and possible autoismition or explosion when exposed to extreme heat.

Section V -- HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -- Sec Section 11

EFFECTS OF OVEREXPOSURE

ACUTE: Overexposure causes ever skin and respiratory irritation. Has cause nervous susten depression accompanied by headache, distiness, nausea, confusion and stassering sait. Extreme overexposure was result in unconsciousness and possible death.

CHRONIC: Prolonsed overexposure to insredients in Section II may cause adverse effects to

the liver, and urinary systems.

Reports have associated repeated and prolonded overexposure to solvents with permanent brain and nervous system damage.

EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If affected, remove from excosure, Rostore breating. Keer warm and mujet,

If on SKIN: Wash affected area thoroughly with soor and water.

Remove contaminated clothins and launder before re-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical 1

attention.

Section VI -- REACTIVITY DATA

STABILITY -- Stable

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide: Carbon Monoxide: Oxides of Metals in Section II

HAZARDOUS FOLYMERIZATION -- Will Not Occur

Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of isnition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for isnitability and extractability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in

accordance with Federal, State, and Local resulations resarding pollution.

Section VIII -- PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing varor and srray mist. Avoid contact with skin and eyes. Wash hands after using.

Protect assinst hazardous dust or fumes which may be senerated by sanding, wirebrushing,

abrading, burning, brazing or welding of the dried film.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910,94; 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below arplicable limits by ventilations wear respiratory depresent by EliSH/MSEs for protection assinst materials in Section 11.

PROTECTI S ALCOES

Wear sloves which are recommended by slove surrlier for protection addingt materials in Section II.

EYE FROTECTION

Wear safety spectacles with unrerforated sideshields.

Section IX -- PRECAUTIONS

DOL STURAGE CATEGORY -- 18

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are FLAMMABLE. Keep away from heat; sparks; and oven flame.

During use and until all varors are sone: Keer area ventilated - No not smoke -Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

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Consult NFPA Code. Use approved Bondins and Groundins procedures.

Keep container closed when not in use. Transfer only to arrenved containers with complete and appropriate labeling. Do not take internally, Keep out of the reach of children. OTHER PRECAUTIONS

* This coating contains materials classified as nuisance particulates, for example titanium dioxide, calcium carbonate, etc. (see ACGIH TLV List, Preface and Appendix D), which was be present at hazardous levels only during sanding or abrading of the dried film.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.



The above information pertains to this product as currently; formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

COATING/THINNER DATA FORM

COMPANY Name: SEQUOYAH NUCLOR PLANT TENNESSEE VALLEY AUTHORITY
Applicable APCB Certificate #: (SERMCF BLDG POINT SPRAY BOOTH)
Product Name: INDUSTRIAL ENAMEL, MIDTONE BASE
Product Manufacturer: AE SHERMAN - WILLIAM'S Co,
Usage Data
Dail; (gal/day): 0.0/5
Annual (gal/yr): 4
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: Sor ATTACHED MSDS
As Received (Concentrated):
Density (1bs/gal): 8.86
Solids & by Weight: 60 & by Volume: 42.9
voc & by Weight: 40
Water % by Weight: % by Volume:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal):
Solids % by Weight: % by Volume:
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: NA
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. YesNo
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: MANNER OF GIVIRONMENTAL QUALITY

11/03/89

RMP

HMC 553

B54 W 102

12

MATERIAL BAFETY DATA SHEET FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor 'Essentially Similar' to form OSHA-20100FWED

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY 101 Prospect Avenue N.W.

Cleveland, Ohio 44115

DATE OF PREPARATION

EMERGENCY TELEPHONE NO. (3216) 566-2917

APR 23 1987

INFORMATION TELEPHONE NO.

(216) 566-2902

我们心理我想来,我们就看到我看到我们的时候我们就会看到我们的自己的现在分词,我们也没有好好的时候也没有我们的好好的,我们会会会会会会会会会会会会会会会会会会会会 第二章 Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER

- B54 NW +102

PRODUCT NAME

INGREDIENT

!Industrial Enamel, Midtone Base

PRODUCT CLASS

CAS No.

Alkyd Enamel

Section II -- HAZARDOUS INGREDIENTS

PERCENT Sut TLU-PPH TLU-MG/M3 LEL

* - Trade Mark

64742-47-8 Mineral Spirits.

.40 100. 581. 1.0

Section III -- PHYSICAL DATA

EVAPORATION RATE -- Slower than Ether VAFOR DENSITY -- Heavier than Air

BOILING RANGE (F) % VOLATILE VOLUME

WT/GAL

1300 - 395

57.1

8.86

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMARILITY CLASSIFICATION FLASH POINT HEADING PMCC LEL 1.0

Combustible, Flash above 99 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide: Dry Chemical: Fosm

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keer containers tightly closed. [Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective en imment including self-contained breathing apparatus should be used. Water spray has be introduced to water is used, for nozzles are preferable. Later may be used to cool closed one of the to provent pressure build-up and possible autoisnition or explosion when Amposed to extrame hest.

B54 W .102

Industrial Enamel: Midtome Rase

Section V -- HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE -- See Section II

EFFECTS OF OVEREXPOSURE

ACUTE: In a confined area vapors in high concentration are anesthetic. Overexposure may

result in lightheadedness and stassering sait. Irritant to skin and upper respirators system.

CHRONIC: Reports have associated reseated and prolonged overexposure to solvents with

rermanent brain and nervous system damage.

EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If affected, remove from exposure. Restore breethins. Keep wern and quiet.

If on SKIN: wash affected area thoroughly with soar and water.

Remove contaminated clothins and launder before me-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. "Get medical attention.

Section VI -- REACTIVITY DATA

STABILITY -- Stable

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide: Carbon Monoxide

HAZARDOUS FOLYMERIZATION -- Will Not Decur . 我们只见你就是我们有多数,我就就会们们们还是我们就会会看到我们也没有有有效的的,我们们也可以会会的,我们也有有多数的,我们也可以是我们的我们的我们的,

Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of isnition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local resulations resarding pollution.

Section VIII -- PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing varor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

Protect assinst dust which may be senerated by sanding or abrading the dried film.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear prespiratory device approved by NIOSH/MSHA for protection against materials in Section II. PROTECTIVE GLOVES

Wear sloves which are recommended by slove supplier for protection assinst materials in

Section IT EY THE THE THE

bear safety spectacles with unperforated sideshields.

Section IX -- PRECAUTIONS

DOL STORAGE CATEGORY -- 2 PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are COMBUSTIBLE. Keer away from heat and open flame,

Consult NFPA Code. Wee approved Bonding and Grounding procedures.

Keer container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children. OTHER PRECAUTIONS

This coating contains materials classified as nuisance, particulates, for example titanium dioxide, calcium carbonate, etc. (see ACGIH TLV List, Fraface and Appendix D), which now be present at hazardous levels only during sanding or abrading of the dried film.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

COATING/THINNER DATA FORM

COMPANY Name: SEDUDYAH NUCLEAR PLANT TENNESSE VALLEY SUTHORTY
Applicable APCB Certificate #: (SERVICE BUDG PRINT SPRAY BOOTH)
Product Name: CARD ZINC
Product Manufacturer: CARBOUNE CO.
Usage Data
Daily (gal/day): 0.01
Annual (gal/yr): Z.5
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See Arrage MSDS
As Received (Concentrated):
Density (lbs/gal): 8.8
Solids & by Weight: 35.7 & by Volume: 15
voc % by Weight: 64.3 % by Volume: 85
Water % by Weight: NA % by Volume:
As Applied (Diluted): (/; 1,5)
Density (lbs/gal): 8 by Volume:
Solids % by Weight: 67 % by Volume: 60
voc % by Weight: 33 % by Volume: 40
Water % by Weight: NA % by Volume:
Thinner Data
Chemical Composition: CARBOUNE THINNER 33
Density (1bs/gal): 6.5
Mfr. Data Sheet or Certification is attached. Yes No
*For MSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: Management of Giving Management of Complete to the District Office of Giving Management of Complete to the Desiry
11/03/89

MATERIAL SAFETY DATA SHEET

HMG 2580

- - - - - - -

Carboline Co. INFORMATION TELEPHONE NO.: 314-644-1000 EMERGENCY TELEPHONE NO.: 314-644-1000 PREPARER: JKM 350 Hanley Industrial Ct. St. Louis, MO 63144 PREPARATION DATE: 08/11/87 SECTION 1 - PRODUCT JDENTIFICATION CARBO ZINC 11 SG BASE SECTION 11 - HAZARDOUS INGREDIENTS OCCUPATIONAL VAPOR NOWN OR PRESENTE EXPOSURE LIMITS MANO SOC CARCINOSEN (TLV-TWA) CAS NUMBER 15 LESS THAN DIEMICAL NAME NO # NOT EST NOT EST NOT EST NOT EST NOT EST 43.0 £4-17-E ETHYL ALCOHOL 12001-25-2 1335-30-4 MIXTURE 20.0 mpocf 10.0 mp/si3 0.0 MICRATED ALIMINAM SILICATE -AMOLIN TETRALAMI, ORTHOSILICATE 20% 10% 10% 20% 54 110 10 ppm NO NO 50 ppn 7-ETHONY BUTANDL 400 pen 250 mg/m3 10.0 mg/m3 NOT 138.0 METHANOL NOT EST YELLOW IRON DX LE * - NUISANCE DUST, ONLY HAZARDOUS WHEN DRIED COATING IS REMOVED SECTION III - PHYSICAL DATA VAPOR DENSITY : IS HEAVIER THAN AIR EVAPORATION RATE: IS SLOWER THAN ETHER

BOILING RANGE : 149-340 F EVAPORATION RATE: 15 SLOWER THAN ETHER

VOLATILE BY WEIGHT: 84.3% PRODUCT WT/GAL: 8.8 LES./GAL. (U.S.)

VOLATILE BY VOLUME: 85.0%

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 56 F

LEL: 1.1

(PENSKY-MARTENS CLOSED CUP) UEL: 96.0

FLAMMABILITY CLASSIFICATION:

OSHA - FLAMMABLE LIQUID - CLASS IB

DOT - FLAMMABLE LIQUID OR SOLID

EXTINGUISHING MEDIA: DRY CHEMICAL CARBON DIOXIDE WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE. VAPORS MAY BE IGNITED AT LOCATIONS DISTANT FROM THE HANDLING SITE. FLASHBACK OF FLAME TO THE HANDLING SITE MAY OCCUR.

SPECIAL FIREFIGHTING PROCEDURES: EVACUATE HAZARD AREA, WEAR PROTECTIVE CLOTHING USE A NIOSH APPROVED SELF-CONTAINED BREATHING UNIT. COOL FIRE-EXPOSED CONTAINERS WITH WATER. IN THE CASE OF LARGE FIRES, ALSO COOL SURROUNDING EQUIPMENT AND STRUCTURES WITH WATER.

SECTION V - HEALTH MAZARD DATA

SEFFECTS OF OVER EXPOSURE: ACUTE TOXICITY: OVEREXPOSURE CAN LEAD TO CENTRAL NERVOUS SYSTEM
DEPRESSION PRODUCING HEADACHE. DIZZINESS, NAUGEA, AND LOSS OF CONSCIOUSNESS. EYE CONTACT:
DEPRESSION PRODUCING HEADACHE. DIZZINESS, NAUGEA, AND LOSS OF CONSCIOUSNESS. EYE CONTACT:
SHOWN-TERM CONTACT MAY RESULT IN SLIGHT EYE IRRITATION, PROLUNGED AND REPEATED CONTACT CAN CAUSE DEFATTING
EE MORE IRRITATION, SKIN CONTACT: PROLONGED REPEATED LIQUID CONTACT CAN CAUSE DEFATTING
DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION OR DERMATITIS. INHALATION: HIGH
DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION OR DERMATITIS. INHALATION: HIGH
CONCENTRATIONS OR PROLONGED EXPOSURE TO LOWER CONCENTRATIONS MAY BE SLIGHTLY IRRITATING TO
MUCCUS MEMBRANES. CAUSES EYE IRRITATION HARMFUL IF AESORGED THROUGH SKIN. MAY BE FATAL OR
CAUSE BLINDNESS IF SWALLOWED. CANNOT BE MADE NON-POISONOUS.

MEDICAL CONDITIONS PROME TO AGGRAVATION BY EXPOSURE: NONE PRIMARY ROUTE(S) OF ENTRY: INHALATION DERMAL SINGESTION

1. 1. 410

SECTION V - HEALTH MAZARD DATA

EMERGENCY AND FIRST AID PROCEDURES: EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES WHILE MOLDIM: EYELIDS OPEN, GET MEDICAL ATTENTION, SKIN CONTACT; WASH WITH SOAP AND WATER. REMOVE LONTAMINATED CLOTHING AND SHOES CLEAN BEFORE, USING IF PERSISTENT IRRITATION REMOVE TO FRESH, PROVIDE OXYGEN IF BREATHING INCOLURS, GET MEDICAL ATTENTION, INHALATION REMOVE TO FRESH, PROVIDE OXYGEN IF BREATHING INTOLURS, GET MEDICAL ATTENTION, POISONILL BY SWALLOWED, INDUCE VONITING, GIVE TWO GLASSES OF WATER AND GAG VICTIM, NEVER GIVE WANTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

SECTION VI - REACTIVITY DATA

STABILITY: THIS PRODUCT IS STABLE UNDER NORMAL STORAGE CONDITIONS.

MAZARDOUS POLYMERIZATION: WILL NOT OCCUR UNDER NORMAL CONDITIONS.

MAZARDOUS DECOMPOSTION PRODUCTS: CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

CONDITIONS TO AVOID: AVOID HEAT, SPARKS, AND OPEN FLAME.

INCOMPATABILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELL SED OR SPILLED: WARNING: FLAMMABLE. ELIMINATE ALL IGNITION SOURCES. HANDLING EQUIPMENT M ST BE GROUNDED TO PREVENT SPARKING. LARGE SPILLS: EVACUATE THE HAZARD AREA OF UNPROTI ITED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. DIKE AND CONTAIN. TRANSFER TO STORAGE/SALVAGE VESSELS. SOAK UP PROTECTIVE CLOTHING DIKE AND CONTAIN. TRANSFER TO STORAGE/SALVAGE VESSELS. SOAK UP PROTECTIVE CLOTHING AS INDICATED SELDY OR SAND. FLUSH AREA WITH WATER AND DISPOSE OF FLUSH SOLUTIONS AS INDICATED SELDY. SMALL SPILLS: TAKE UP WITH AN ABSORBENT MATERIAL AND SEAL TIGHTLY FOR PROPER DISPOSAL.

WASTE DISPOSAL METHOD: PLACE CONTAMINATED MATERIAL IN SUITABLE CONTAINERS FOR DISPOSAL. PLACE IN A DISPOSAL FACILITY APPROVED UNDER RORA REGULATIONS FOR HAZARDOUS WASTE. USE NON-LEAKING CONTAINERS, SEAL TIGHTLY AND LABEL PR' ERLY.

RESPIRATORY PROTECTION: IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SECTION II) USE A NIOSH - APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910 134 USE EITHER AN ATMOSPHERE - SUPPLYING RESPIRATOR OR AN AIR - PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

USE EXPLOSION - PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR VENTILATION: US

PROTECTIVE GLOVES: WEAR IMPERVIOUS GLOVES.

EYE PROTECTION: WEAR CHEMICAL GOGGLES TO PREVENT EYE CONTACT.

OTHER PROTECTIVE EQUIPMENT: WEAR PROTECTIVE CLOTHING AS REQUIRED TO PREVENT SKIN CONTACT.

HYGIENIC PRACTICES: WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES, LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

SECTION IX - SPECIAL PRECAUTIONS PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME, STRONG OXIDIZING AGE TO. KEEP CONTAINERS CLOSED, STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION, GROUND EQUIPMENT TO PREVENT ACCUMULATION OF STATIC CHARGE, IF POURING OR TRANSFERRING MATERIALS, CONTAINERS MUST BE BONDED AND GROUNDED.

OTHER PERSONNELD NOT WELD, HEAT OF DRILL ON OR NEAR CONTAINER; EVEN EMPTIED CONTAINERS CAN CONTAIN EXPLOSIVE VAPORS, PROVIDE REPIRATORY PROTECTION AGAINST STRUMES GENERATED DURING DURING OR DUSTE GENERATED DURING REMOVAL OF DRY COATINGS SMOKE AND

THE INFORMATION CONTAINED MEDS IN IS. TO THE BEST OF OUR REVOLUCE AND SELLES ACCURATE MOMENTS OF MEDICAL AND LOSS AND ESSENTIAL OF MEDICAL AND ASSAULT HOLD FOR CHARACTER IN CURRED BY USE OF THIS MATERIAL. IT IS THE RESPONSIBILITY OF THE USER TO COMPLY WITH ALL APPICASE PIDERAL. STATE AND LOCAL LANS AND REQUIRATIONS. E TO

CARBOLINE COMPANY 1401 S. Henley Road St. Louis, MO 63144 INFORMATION TELEPHONE NO . CHEMTREC EMERGENCY TELEPHONE NO . DATE OF PREPARATION:

(314) 644-1000 (1) (800)-424-9300 09/12/86

SECTION 1 - PRODUCT IDENTIFICATION "

PRODUCT NAME: CARBOLINE THIMNER 33

PRODUCT CODE: D1-D533-D

PRODUCT CLASS: SOLVENT BLEND

MAY 16 '087

BECEIVED

SECTION 11 - HAZARDOUS INGREDIENTS

INGREDIENT (LABEL NAME IF DIFFERENT)	WEIGHT PERCENT	EXPOSURE LIMITS		WAPOR PRESSURE	
		(TLVO-TWA)	(PEL)	ZD*C see./Hg	
AROMATIC HYDROCARBON 1-METHOXY 2-PROPANOL (PROPYLENE GLYCOL MONO METHYL ETHER) DIPROPYLENE GLYCOL MONOMETHYL ETHER	>1%	SÚ ppe	NONE	10.0	
)1%	100 pps NONE 100 pps NONE	NOVE	12.5 0.55	
	>1%		NOVE		

SECTION III - PHYSICAL DATA

BOILING RANCE: 248 - 363°F MIXED NEIGHT/GALLON: 5 - 8 LBS./GAL. (U.S.) VOLATILE BY WEIGHT: 98 - 100% VOLATILE BY VOLLIME: 98 - 100% WAPOR DENGITY: IS HEAVIER THAN AIR.

EVAPORATION RATE: IS SLOWER THAN ETHER.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: (DS-4A): - FLAMMABLE LIGUID - CLASS IC

FLASH POINT (PMCC): 91°F

LE: 0.9

(DOT) : - FLATTABLE LIQUID OR SOLID

EXTINGUISHING MEDIA: DRY CHEMICAL.

UNUSUAL FIRE AND EXPLOSION HAZARD: KEEP CONTAINERS TIGHTLY CLOSED, ISOLATE FROM HEAT, SPARKS, ELECTRICAL EQUIPMENT AND OPEN FLAMES. CLOSED CONTAINERS MAY EXPLODE UNEN EXPOSED TO EXTREME HEAT.

SPECIAL FIREFIGHTING PROCEDURES: WATER MAY BE USED TO COOL CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTO-IGNITION OR EXPLOSION WHEN SYROSED TO EXTREME HEAT. IF WATER IS LISED, SPRAY NOZZLES ARE PREFERABLE. WATER SPRAY MAY BE INEFFECTIVE.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVER EXPOSURE: INHALATION: IRRITATION TO THE RESPIRATORY TRACT, HEADACHE, DIZZINESS, AND NALSEA ARE POSSIBLE. SKIN CONTACT: FRIMARY IRRITATION. EYE CONTACT: FRIMARY IRRITATION.

MEDICAL CONDITIONS PROVE TO AGERNATION BY EXPOSURE: UNKNOWN.

PRIMARY ROUTE(S) OF ENTRY: INHALATION.

EMERGENCY AND FIRST ALD PROCEDURES: IN-PLATION:REMOVE TO FRESH AIR AND RESTORE BREATHING. TREAT SYMPTOMATICALLY AND CONSULT A PHYSICIAN. SKIN CONTACT: REMOVE COATING WITH SOLVENT. IMPEDIATELY WASH AFFECTED AREA WITH SOAP AND WATER. CONSULT A PHYSICIAN IF IRRITATION PRESISTS. EYE CONTACT: FLESH IMPEDIATELY WITH LAFFE, AND NOTE FOR A LEAST 15 MINUTED. TAKE TO A PHYSICIAN FOR MEDICAL TREATMENT. INDESTIGN: DRINK 1 OR 2 LASSES OF WATER TO DILUTE. TO WAS CALLED VISITIONS. AMOUNT A CONTROL OF MOLSON CONTROL DENTES.

SECTION - HE CTIVITY DATA

STABILLITY: THIS PRODUCT IS STABLE UNDER NORMAL STORAGE CONDITIONS.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR UNDER NORMAL CONDITIONS.

HAZARDOLIS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, AND POSSIBLY ALDERMOSS.

CONDITIONS TO AVOID: ALSO MAY PRODUCE PUMES WHEN HEATED TO DECOMPOSITION, AS IN WELDING. FUMES MAY CONTAIN OXIDES OF METALS LISTED IN SECTION 11.

INCOMPATIBILITY (MATERIALS TO ANDID): NONE RESONABLY FOREFARE.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: ANDID BREATHING SOLVENT WAPORS. ENGINE ADEQUATE VENTILLATION. ANDID SPIAN'S, FLAMES AND ANYTHING WHICH COLLD CALEE FIRE.

WASTE DISPOSAL METHOD: SOAK LIQUIDS WITH SANDLET OR RAGE AND REMOVE. FILEH WITH WATER IF POSSIBLE. AVOID SKIN CONTACT AND DISPOSE OF IN ACCORDANCE JITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII - SAFE HANDLING AND LEE INFORMATION

RESPIRATORY PROTECTION: NIOS-VOG-14 APPROVED RESPIRATOR TYPES SUITABLE FOR MATERIALS IN SECTION II RECOMMENDED. APPROVED OFFICAL MEDIANICAL FILTERS RECOMMENDED WITH VENTILATION IS RESTRICTED.

VENTILATION: SUFFICIENT VENTILATION, IN VOLUME AND PATERN, SHOULD BE PROVIDED TO KEEP AIR CONTAMINATION BELOW OL WENT APPLICABLE OSHA PERMISSIBLE EXPOSURE LIMIT OR ACCEPIT'S TLV LIMIT LISTED IN SECTION II.

PROTECTIVE BLOWES: PROTECTIVE BLOWES RECOMMENDED.

EYE PROTECTION: CHEMICAL GOOD ES WITH SIDE SHIELDS OR FACE SHIELDS RECOMPENDED.

OTHER PROTECTIVE EQUIPMENT: PROTECTIVE CHEAPS AND CLOTHING RECOMPENDED TO AVOID SKIN CONTACT.

MIGIENIC PRACTICES: WASH HANDS BEFORE EATING, SMOKING OR LISING THE RESTROOM, SMOKE IN DESIGNATED AREAS ONLY.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: STORE MATERIAL IN A COOL DRY AREA WITH VENTILATION SUITABLE FOR STORING MATERIALS SHOWN IN SECTION II.

OTHER PRECAUTIONS: PROVIDE RESPIRATORY PROTECTION AGAINST SMOKE AND FLMES GENERATED DURING BLANING OR DUSTS GENERATED DURING REMOVAL OF DRY CONTINGS.

29 OFR PARTS 1915,1916, AND 1917 REQUIRE THE PREPARATION OF THIS MATERIAL SAFETY DATA SHEET.

COMPANY Name: SEDUDYAH NUCLEAR PLANT	TOWNESSE VALLEY SUTHORTY
Applicable APCB Certificate #: (SERVICE	- RING BUILT SORAN BOOTH)
Product Name: PHENOLINE 305 H	
Product Manufacturer: CARBOLINE	COMPANY
Usage Data	
Daily (gal/day): 0.01	
Annual (gal/yr): 2.5	
Rule 25.43 & 25.44	
Analysis or Manufacturers Certificati	on Data*: See Arracula MSDS
As Received (Concentrated):	
Density (lbs/gal): 10.5	
and the second s	% by Volume: 595
voc % by Weight: 27.5	% by Volume: 40,5
Water % by Weight: NA	% by Volume:
As Applied (Diluted): (/:/5)	
Density (lbs/gal):	+ by Volume:
Solids % by Weight: 7/	* by Volume: _60 _
voc % by Weight: 29	% by Volume: 40
Water % by Weight: NA	% by Volume:
Thinner Data	
Chemical Composition: SexUNT BUT	4D
Density (lbs/gal): 6.5	
Mfr. Data Sheet or Certification is a	attached. Yes No
*For NSPS Sources Method 24 must be used	1.
Tit	is true and complete to the are: Mullimulately tle: William of Giviron Large Day 177
11/03/89	

RMP

(314) 644-1000 (800)-424-9300 \$ 09/12784

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: "PHENOLINE THINNER PRODUCT CODE: 01-0505-0 PRODUCT CLASS: SOLVENT BLEND

SECTION!	11 -	HAZARDOUS	INGRED.	LENTS
mager I I I LANG		I the later to the last have been	The state of the state of the state of	B. State C. L. Committee

All of the second secon			EIGHT PERCENT	EXPOSERE!	LIMITS	VAPOR PRESEURE	
INGREDIENT (LAREL NAME IF DIFFERENT)		ראיכח		(TLUE-TWA) (PEL)		20°C mm/Hg	
TT DV ew halfolden Ch.	me arrest militaristes	QN	>1%	100 pps	100 pps	21.0	
STETIML-2+EXANDE (KETONE)	11.21	s 1987	>1% >1%	50 pps 100 pps	NOVE	12.5	
1-METHOXY 2-PROPANOL (PROPYLENE BLYCOL MONO METHYL ETHER) 1-1-METHYL BENZENE (ARCMATIC HYDROCARBON)	JUL	0 250.	>1%	100 pps	100 ppm	7.5	
Z-ETHOXY BUTANOL (ETHYLENE BLYCOL MOND BUTYL ETHER)			>1%	Z5 pps	50 pps	0.6	

SECTION III - PHYSICAL DATA

VOLATILE BY WEIGHT: 98 - 100% VAPOR DENSITY: IS HEAVIER THAN AIR.

VOLATILE BY VOLUME: 98 - 100% EVAPORATION RATE: IS SLOWER THAN ETHER. BOILING RANGE: 248 - 340°F VOLATILE BY VOLUME: 98 - 100% MIDED WEIGHT/GALLON: 5 - B LRS./GAL. (U.S.)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMINGILITY CLASSIFICATION: (DS-14): - FLAMINGLE LIQUID - CLASS IC , (DOT) : - FLATMABLE LIQUID OR SOLID

FLASH POINT (PMCC): 77°F

LEL: 1.0

EXTINGUISHING MEDIA: DRY CHEMICAL.

UNLEUAL FIRE AND EXPLOSION HAZARD: KEEP CONTAINERS TIGHTLY CLOSED STOCKET FROM HEAT, SPARKS, ELECTRICAL EQUIPMENT AND OPEN FLAMES. CLOSED CONTAINERS MAY EXPLODE WEN EXPOSED TO EXTREME HEAT.

SPECIAL FIREFIGHTING PROCEDURES: WATER MAY BE LEED TO COOL CONTAINERS TO PREVENT PRESELVE BUILD-UP AND POSSIBLE AUTO-IBNITION OR EXPLOSION WHEN DIPUGED TO EXTREME HEAT. IF WATER IS LEED, SPRAY NOZZLES ARE PREFERABLE. WATER SPRAY MAY BE INEFFECTIVE.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVER EXPOSURE: INHALATION: LIBRITATION TO THE RESPIRATORY TRACT; HEADACHE, DIZZINESS, AND NALEEA ARE POSSIBLE. SKIN CONTACT: PRIMARY IRRITATION. EYE CONTACT: FRIMARY IRRITATION.

MEDICAL CONDITIONS PROVE TO AGGRAVATION BY EXPOSURE: LINKNOWN.

FRIMMEY ROUTE (5) OF ENTRY: DERMAL AND INHALATION.

EMERGENCY AND FIRST AID PROCEDURES: INHALATION:REMOVE TO FRESH AIR AND RESTORE BREATHING. TREAT SYMPTOMATICALLY AND CONSULT A PHYSICIAN. SKIN \$ CONTACT: REMOVE COATING WITH SOLVENT. IMPEDIATELY WASH AFFECTED AREA WITH SOAP AND WATER. CONSULT A PHYSICIAN IF IRRITATION PERSISTS. EYE COMMON FILEN INVESTIGATELY WITH LARGE AMOUNTS OF WITH FOR AT LEAST 15 MINUTES. TAKE TO A PHYSICIAN FOR MEDICAL TREATMENT. INSESTION: DRINK 1 OR CO RATHE OF WATER TO DILLTE. DO NOT INDUCE VOMMITING. CONSILT A PHYSICIAN OR POISON CONTROL CENTER.

SECTION VI - REACTIVITY DATA

STABILITY: THIS PRODUCT IS STABLE UNDER NORMAL STORAGE CONDITIONS.

HAZARDOLIS POLYMERIZATION: WILL NOT OCCUR UNDER NORMAL CONDITIONS.

HAZARDOLE DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, AND POESIBLY ALDEHYDES.

CONDITIONS TO AVOID: ALSO MAY PRODUCE FLMES WEN HEATED TO DECOMPOSITION, AS IN WELDING. FUMES MAY CONTAIN OXIDES OF "ETALS LISTED IN SECTION 11.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: ANOID BREATHING SOLVENT VAPORS. ENEURE ADEQUATE VENTILATION. ANOID SPARKS, FLAMES AND ANOTHING WHICH COLLD CALEE FIRE.

WHETE DISPOSAL METHOD: STAK LIQUIDS WITH SANDLET OR RAGE AND REMOVE. FILLEN WITH WATER IF POSSIBLE. AVOID SKIN CONTACT AND DISPOSE OF IN ACCORDANCE STATE AND FEDERAL REGULATIONS.

SECTION VIII - SAFE HANDLING AND LISE INFORMATION

RESPIRATORY PROTECTION: NIOS-VOSHA AFTROVED RESPIRATOR TYPES SUITABLE FOR MATERIALS IN SECTION 11 RECOMMENDED. AFTROVED DEMICAL MEDIANICAL FILTERS RECOMMENDED WHEN VENTULATION 15 RESTRICTED.

VENTILATION: SUFFICIENT VENTILATION, IN VOLUME AND PATERN, SHOULD BE PROVIDED TO KEEP AIR CONTAMINATION BELOW CURRENT APPLICABLE OSHA PERMISSIBLE EXPOSURE LIMIT OR ACCHI'S TUV LIMIT LISTED IN SECTION II.

PROTECTIVE GLOVES: APROTECTIVE GLOVES RELOTENCED.

EYE PROTECTION: OFFICAL BOOR ES WITH SIDE SHIELDS OR FACE SHIELDS RECOMENDED.

OTHER PROTECTIVE EQUIPMENT: PROTECTIVE CREATS AND CLOTHING RECOMPENDED TO AVOID SKIN CONTACT!

MIGIENIC PRACTICES: JUNGH HANDS BEFORE EATING, SMOKING OR LISING THE RESTROOM, SMOKE IN DESIGNATED AREAS ONLY.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: STORE MATERIAL IN A COOL DRY AREA WITH VENTILATION SUITABLE FOR STORING MATERIALS SHOWN IN SECTION II.

OTHER PRECIACTIONS: PROVIDE RESPIRATORY PROTECTION AGAINST SMOKE AND FLMES GENERATED DURING BLIRNING OR DUSTS GENERATED DURING REMOVAL OF DRY COATINGS.

29 OFR PARTS 1915,1916, AND 1917 REQUIRE THE PREPARATION OF THIS MATERIAL SAFETY DATA SHEET.

CARBOLINE COMPANY 1401 S. Hanley Road 5t. Louis, MO 63144

INFORMATION TELEPHONE NO. (314) 644-1000 CHEMTREC EMERGENCY TELEPHONE NO. (800)-424-9300 DATE OF PREPARATION:

09/12/86

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: PHENOLINE 305 PRIMER PART A PRODUCT NAME: PHENOLINE 305 PRIMER PART "B" PRODUCT CODE: 01-0606-A PRODUCT CODE: 01-0606-B

PRODUCT CLASS: MODIFIED PHENOLIC

SECTION 11 - HAZARDOUS INGREDIENTS

	WELIGHT PERCENT			EXPOSURE LIMITS		WAPOR PRESEURE	
INGREDIENT (LABEL NAME IF DIFFERENT)	PART A	PART B	MIXED	(TLVO-TWA)	(PEL)	20°C mm/Hg	
A STANDE ANTIM STORING VETAEL)1%)11.	>1%	50 ppe	100 pos	40.0	
4-METHYL-2-PENTANDRE (METHYL ISCRUTYL KETONE) UM & P NAPTHA (NAPHTHA)	>1%	21%	>1%	200 pps	NOVE	2.0	
2 ETHOXYETHANDL (ETHMENE BLYCOL MOND ETHML ETHER)	>1%	>1%	>1%	5 pps	200 ppe	3.8	
TO LEVE	>1%	DX.)1%	100 ppm	NOVE	38.0	
ISOPROPANO.	CX.	>1%	>1%	200 pps	400 pps	90.0	
DIETHMENE TRIAMINE (ALKYL AMINE)	DI.	>1%	>1%	1 pps	NONE	1.0	
MEE	>1%	Dr.	>1%	100 ppm	100 ppe	21.0	
1,3 DIAMINOFROPANE (ALKYL AMINE)	DZ.	>1%	>.1%	NONE	NOVE	8.0	
ADQ.	DZ.	>1%	>.1%	5 ppm	5 pps	0.2	
NININ' IN'-TETRAFETHYL-1,3 BUTANEDIAMINE (ALKYL AMINE)	DX.	>1%	>.1%	NOVE	NOVE	2.0	
E FOLLOWING DUST EXPOSURE POTENTIAL COLLD EXIST AS NORMAL DUST HAZARDS	OR WHEN REMO	VINE CURED	COATING BY	DRY ABRASION ME	TH005.		
POTAESIUM ALUMINOSILICATE - MICA (MICA)	>1%	DZ.	>1%	689/8	15eg/s	NOVE	
CALCINED ALMINIM SILICATE-KAOLIN (CLAY)	>1%	DIL	>1%	1Dang/a	10mg/m	NOVE	

SECTION III - PHYSICAL DATA

BOILING RANGE: 173 - 300°F MIXED WEIGHT/GALLON: 9 - 12 LBS./GAL. (U.S.)

VOLATILE BY WEIGHT: 26 - 29% VOLATILE BY VOLIME: 37 - 42%

WAPOR DENGITY: IS HEAVIER THAN AIR. EVAPORATION RATE: IS SLOWER THAN ETHER.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLATTABILITY CLASSIFICATION: (1994): FT. A - FLATTABLE LIQUID - CLASS IC FLASH POINT: (PMCC) PT. A: 96 F PT. B - FLAMMABLE LIQUID - CLASS 1B

PT. B: 54°F

the transfer of the property of the property of

LE: 0.9

(DOT) : PT. A - FLAPPABLE LIQUID OR SOLID

PT. B - FLAMMABLE LIQUID OR SOLID

EXTINGUISHING MEDIA: DRY CHEMICAL, WATER FOG OR OTHER MEDIA SUITABLE FOR SOLVENTS IN SECTION 11.

UNUBURL FIRE AND EXPLOSION HAZARD: KEEP CONTAINERS TIGHTLY CLOSED, ISOLATE FROM HEAT, SPARKS, ELECTRICAL EQUIPMENT AND OPEN FLAMES. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

SPECIAL FIREFIGHTING PROCEDURES: WATER MAY BE LISED TO COOL CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTO-IBNITION OR EXPLOSION WHEN DROCED TO EXTREME HEAT. IF WATER IS USED, SPRAY NOZZLES AS FISHERALE. WATER SPRAY MAY BE INSTRUCTIVE.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OLER EXPOSURE: INHALATION: IRRITATION TO THE RESPIRATORY TRACT, HEADACHE, DIZZINESS, AND NALEEA ARE POSSIBLE. SKIN CONTACT PRIMARY IRRITATION. EYE CONTACT: PRIMARY IRRITATION. 2-ETHOXYETHANOL AND 2-ETHOXYETHANOL ACETATE CAN BE ABBORDED AFTER ORAL, SKIN, OR 1 MALATION EXPOSURE, AND CAN CALEE TOXICITY IN INTERNAL ORGANS SUCH AS BLOOD, LIVER, KLONEYS, AND TESTES. SOME STUDIES INDICATE LONG-TERM CHRONIC EXF. TRE TO E-ETHOXYETHANOL AND 2-ETHOXYETHANOL ACETATE MAY CALEE REPRODUCTIVE DISORDERS. ALKYL AMINES (i.e. DIETHYLENE TRIAMINE) ARE SKIN SENSITIZERS. AUDID SKIN CONTACT AND INHALATION BY WEARING APPROPRIATE PROTECTIVE CLOTHING, RESPURATORS, AND EYE PROTECTION.

MEDICAL CONDITIONS PROVE TO AGGRAVATION BY EXPOSURE: LINCXCLAN.

PRIMARY ROUTE(S) OF ENTRY: DERIVAL AND IN-VALATION.

SECTION V - HEALTH HAZARD DATA - cont.

PICY AND FIRST AID PROCEDURES: IN-MULATION: REMOVE TO FRESH AIR AND RESTORE BREATHING. TREAT SYMPTOMATICALLY AND CONSULT A PHYSICIAN. SKIN THREDIATELY WASH AFFECTED AREA WITH SOAP AND WATER. CONSULT A PHYSICIAN IF IRRITATION PERSISTS. EYE IT PLUSH IMPEDIATELY WITH LARGE AMOUNTS OF WITER FOR AT LEAST 15 MINUTES. TAKE TO A PHYSICIAN FOR MEDICAL TREATMENT. INCESTION: OR IN 2 IT PLUSH IMPEDIATELY WITH LARGE AMOUNTS OF WITER FOR AT LEAST 15 MINUTES. TAKE TO A PHYSICIAN FOR MEDICAL TREATMENT. INCESTION: OR IN 2 IT PLUSH IMPEDIATELY WITH LARGE AMOUNTS OF WITER FOR AT LEAST 15 MINUTES. TAKE TO A PHYSICIAN FOR MEDICAL EMERGENCY - SPILL, LEAK, FIRE, S OF WATER TO DILLITE. DO NOT INDUCE VOMMITING. CONSULT A PHYSICIAN OR POISON CONTROL CENTER. FOR OHEMICAL EMERGENCY - SPILL, LEAK, FIRE, 100, OR ACCIDENT CALL DENTREE 1-800-424-7300 DAY OR NIGHT.



SECTION VI - REACTIVITY DATA

LITY: THIS PRODUCT IS STABLE UNDER NORMAL STORAGE CONDITIONS.

HAZARDOLE POLYMERIZATION: WILL NOT OCCUR UNDER NORMAL CONDITIONS.

DOLE DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, AND POSSIBLY ALDEMOES.

TIONS TO AVOID: ALSO MAY PRODUCE PUMES WHEN HEATED TO DECOMPOSITION, AS IN WELDING. PLMES MAY CONTAIN OXIDES OF METALS LISTED IN SECTION II.

PATIBILITY (MATERIALS TO AVOID): NONE RESONABLY FORSTEABLE.

SECTION VII - SPILL OR LEAK PROCEDURES

E TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: ANOID BREATHING SOLVENT VAPORS. ENGLISE ADEQUATE VENTILIZATION. ANOID SPARKS, FLAMES AND HING WHICH COLLD CALEE FIRE.

E DISPOSAL METHOD: SOAK LIQUIDS WITH SANDLET OR RAGS AND REMOVE. FLUSH WITH WATER IF POSSIBLE. ANDID SKIN CONTACT AND DISPOSE OF IN ACCORDANCE LOCAL, STATE AND FEDERAL RESILLATIONS.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

FIRATORY PROTECTION: NIOS-VOSHA APPROVED RESPIRATOR TYPES SUITABLE FOR MATERIALS IN SECTION II RECOMMENDED. APPROVED CHEMICAL MEDHANICAL FILTERS

THOUGH WEN VENTILATION IS RESTRICTED.

TILATION: SUFFICIENT VENTILATION, IN VOLUME AND PATERN, SHOULD BE PROVIDED TO KEEP AIR CONTAMINATION BELOW CURRENT APPLICABLE CS-1A FERMISSIBLE CS-1E LIMIT OR ACCHIE'S TLV LIMIT LISTED IN SECTION II.

TELTIVE BLOVES: PROTECTIVE BLOVES RECOMMENDED.

PROTECTION: "CHEMICAL GOODLES WITH SIDE SHIELDS OR FACE SHIELDS RECOMPNOED.

ER PROTECTIVE EQUIPMENT: PROTECTIVE OREANS AND CLOTHING RECOMENDED TO AVOID SKIN CONTACT.

ITENIC FRACTICES: WASH HANDS BEFORE EATING, SMOKING OR LISING THE RESTROOM, SMOKE IN DESIGNATED AREAS ONLY.

SECTION IX - SPECIAL PRECAUTIONS

ECAUTIONS TO BE TAKEN IN HANDLING AND STORING: STORE MATERIAL IN A COOL DRY AREA WITH VENTILATION SUITABLE FOR STORING MATERIALS SHOWN IN SECTION

THER PRECALITIONS: PROVIDE RESPIRATORY PROTECTION AGAINST SMOKE AND FUMES REPERATED DURING BURNING OR DISTRIBUTIONS TO REPORT OF DRY COATLINES.

29 OFR PARTS 1915,1916, AND 1917 REQUIRE THE PREPARATION OF THIS MATERIAL SAFETY DATA SHEET.



Company Name: SEQUOYAH NUCLEAR PLANT TENNESSEE VALLEY AUTHORIT
Applicable APCB Certificate #: (SERVICE BLEX PAINT SPRAY BOOTH)
Product Name: SOLVENT THINNED STAIN
Product Manufacturer: BANDAMIN MOORE & CO
Usage Data
Daily (gal/day): 0,0/
Annual (gal/yr): 3
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATRUMED MSDS
As Received (Concentrated):
Density (lbs/gal):
Solids % by Weight: 20 % by Volume: 12
voc % by Weight: 80 % by Volume: 88
Water % by Weight: NA % by Volume:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal):
Solids % by Weight: % by Volume
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: NA
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: / Rull rull to the Title: MANNER OF GWIRONMENTAL QUALTY
11/03/89

RMP

MATERIAL SAFETY DATA SHEET - NPCA 1-84 FOR COATINGS, RESINS, AND RELATED MATERIALS REPLACES NPCA 1-82

MANUFACTURER'S NAME Benjamin Moore & Co. 51 Chestrat Ridge Road RECEIVED SON

EMERGENCY TELEPHONE NO.

(201) 344-1200

987		INFORMATI	ON TELEPHO	NE NO
referred and conference and contemporary contemporary to the second		(201) 344		NE INC.
SECTION I -	PRODUCT IDENT	TIFICATION		
	5, PRODUCT NAM	E: Moore's Stain	Interior	Wood Penetrating
SECTION II	- HAZARTOUS IN	GREDIENTS		
CASI	PERCENT			VAPOR PRESSURE
111-76-2	6-14	50 ppm	100 ppm	7.0 mm Hg. @ 25°
			500 ppm	<5.0 mm Hg. 100
			L	IGHTER THAN AIR
		VOLATILE VOI	LIME 88	WI/GAL 7 lbs.
ECTION IV - F	IRE AND EXPLOS	ION HAZARD	ATA	
CSHA DOT X		FLASH PO	INT	LEIL 1.0%
"ALCOHOL" FOA	M <u>C02</u>	DRY CHE	MICAL _	WATER FOG OTH
	se water strea	m on burnin	g líquid.	Cool exposed
SECTION	V - HEALTH HAZ	ARD DATA		
	SECTION II CAS* 111-76-2 64742-88-7 SECTION VAPOR SLOWER THAN SECTION IV - F COSHA DOT X "ALCOHOL" FOA HAZARDS: None URES: Do not u	SECTION II - HAZARDOUS IN CASI PERCENT 111-76-2 6-14 64742-88-7 67-75 SECTION III - PHYSICA VAPOR DENSITY SLOWER THAN ETHER 8 SECTION IV - FIRE AND EXPLOS COSHA DOT X "ALCOHOL" FOAM CO2 HAZARDS: None URES: Do not use water streates SECTION V - HEALTH HAZ	SECTION II - HAZARDOUS INGREDIENTS CAS! PERCENT TLV 111-76-2 6-14 50 ppm 64742-88-7 67-75 100 ppm SECTION III - PHYSICAL DATA VAPOR DENSITY HEAVIER SLOWER THAN ETHER & VOLATILE VOI SECTION IV - FIRE AND EXPLOSION HAZARD IS COSHA FLASH POOR DOT X 110°F "ALCOHOL" FOAM CO2 DRY CHE HAZARDS: None URES: Do not use water stream on burning	SECTION II - HAZARDOUS INGREDIENTS OCCUPATIONAL EXPOSURE LIMITS TLV PEL 111-76-2 6-14 50 ppm 100 ppm 64742-88-7 67-75 100 ppm 500 ppm SECTION III - PHYSICAL DATA VAPOR DENSITY HEAVIER LI SLOWER THAN ETHER & WOLATILE VOLUME 88 SECTION IV - FIRE AND EXPLOSION HAZARD DATA CSHA FLASH POINT DOT X 110°F "ALCOHOL" FOAM CO2 DRY CHEMICAL HAZARDS: None URES: Do not use water stream on burning liquid.

Animal studies have show ingestion of ethylene grycol at high levels can cause central nervous system, kidney, blood, am possible liver effects.

MEDICAL CONDITIONS PRONE TO ACGRAVATION BY EXPOSURE: Unknown

INGESTION INHALATION DERMAL PRIMARY ROUTE(S) OF ENTRY:

DMERGENCY AND FIRST AID PROCEDURES: If swallowed, immediately give 1 or 2 glasses of water and call physician, hospital emergency room or Poison Control Center for way to induce vomiting case of eye contact, flush with plenty of water. If irritation persists, consult physician. For skin contact, wash off with mild soap and water.

SECTION VI - REACTIVITY DATA

STABILITY:

UNSTABLE

STABLE

HAZARDOUS POLYMERIZATION:

MAY OCCUR

WILL NUT COCUR

HMC

399

HAZARDOUS DECOMPOSITION PRODUCTS: Burning may produce carbon monoxide and carbon dioxide.

CONDITIONS TO AVOID: Not Amplicable

RECEIVED

INCOMPATIBILITY (MATERIALS TO ANDIE): NOL Applicable

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SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition. Avoid breathing vapors. Use non-sparking tools to return materials to containers. Absorbine residue with Fuller's earth.

WASTE DISPOSAL METHOD: Conventional procedures in compliance with local, State and Federal Regulation. Do not incinerate sealed containers.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: Use NIOSH approved respirator specified for protection against paint spray mist and organic vapors in restricted or confined areas.

VENTILATION: Adequate to maintain working atmosphere below T.L.V. and L.E.L (See Section II for ingredient data and concentrations). Mechanical exhaustimay be required in confined area. Discharge exhaust only in area away from ignition sources.

PROTECTIVE GLOVES: Required during repeated contact.

EYE PROTECTION: Safety glasses to protect against splashes.

OTHER PROTECTIVE EQUIPMENT: Clothing adequate to protect skin.

HYGIENIC PRACTICES: Not Applicable

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Combustible - Keep away from heat and flame. Harmful or fatal if swallowed.

OTHER PRECAUTIONS: Use only adequate ventilation. Avoid prolonged contact with skin and breathing of vapor or spray mist. Close container after each use. Keep out of the reach of children. Do not take internally.

NOTICE:

Reports have associated permanent brain and nervous system damage with repeated prolonged exposure to solvents amoung persons engaged in the painting trade. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

	D T V A
Company Name: SEQUOYAH NUCLOR	/ ,
Applicable APCB Certificate #: (SERVICE	BLOG POINT SPRAY BOOTH)
Product Name: VARNISH	
Product Manufacturer: PENJAMIN	Madre & Co
Usage Data	
Daily (gal/day): 0.0/	
Annual (gal/yr): 3	
Rule 25.43 & 25.44	
Analysis or Manufacturers Certificati	on Data*: SEE ATTACHED MSDS
As Received (Concentrated):	
Density (lbs/gal): 7.3	THE RESIDENCE OF THE PARTY OF T
solids % by Weight: 39	\$ by Volume: 30
voc % by Weight: 61	% by Volume: _70
Water % by Weight:	% by Volume:
As Applied (Diluted): SME AS ABOVE	
Density (lbs/gal):	& by Volume:
Solids % by Weight:	% by Volume:
voc % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data	
Chemical Composition:	
Density (lts/gal):	
Mfr. Data Sheet or Certification is a	ttached. YesNo
*For NSPS Sources Method 24 must be used	
This is to certify that this information best of my knowledge. Signature	is true and complete to the re: Marker of ENVRONMENTAL QUALITY
11/03/89	

RMP

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MATERIAL SAPETI DATA SHEET NPCA 1-84 FOR COATINGS, RESINS, AND RELATED MATERIALS REPLACES NPCA 1-82

JUL 1 0 1806

EMERGENCY TELEPHONE NO. MANUFACTURER'S NAME 201-344-1200 Benjamin Moore & Co. 51 Thestnut Ridge Rd., Montvale, K.J. 07645 INFORMATION TELEPHONE NO. DATE OF PREPARATION 201-366-1200 March 1986 SECTION 1 - PRODUCT IDENTIFICATION PRODUCT NAME Benupod Saran Fenich Marmist PRODUCT NUMBER 1204 bo PRODUCT CLASS AVarnish SECTION II - HAZARDOUS INGREDIENTS OCCUPATIONAL PERCENT IMCREDIENT PRESSORT EXPOSORE LIMITS PEL CASE TLV NAME ∠ 5.0 mm Hg @ 100°F 500 ppm 100 ppm 64742-88-7 Mineral Spirits SECTION : 11 - PETSICAL DATA HEAVIER LIGHTER THAN AIR BOILING RANGE (3130E) VAPOR DINSITY EVAPORATION RATE FASTER SLOWER THAN FIRE & VOLATILE VOLUME 70% WT/GAL 7.3 1bs. SECTION IV - FIRE AND EXPLOSION HAZARD DATA LEL FLASH POINT FLAMMABIL. ... SSIFICATION OSHA /101°F 1.0% DOT

EXTINGUISHING MEDIA:

FOAM

FOAM

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE

SPECIAL FIREFIGHTING PROCEDURES - Do not use water stream on burning liquid.

Cool exposed containers with water.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE - Inhalation - Respiratory irritation and central nervous system effect - Anesthetic.

Skin and Eye Contact - Primary irritation.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:

PRIMARY FOUTE(S) OF ENTRY: DEEDLE INHALATION INGESTION

EMERGENCY AND FIRST AID PROCEDURES - Inhalation - Remove of the Art of the Collaboration of the Coll

UNSTABLE STABLE

HAZARDOUS POLYMERIZATION MAY OCCUR WILL NOT OCCU!

HAZAR DOUS DECOMPOSITION PRODUCTS -- BURNING Lay produce carbon dioxide and carbon monexide.

CONDITIONS TO AVOID

Not Applicable

DOMPAT MEILITY (MATERIALS TO AVOID)

- Arglicable

SECTION VII - SPILL OR LEAR PROCEDURES

CSTEPS TO BE JAKEN IN CASE MATERIAL IS RELEASED OF SPULLED

Remove all sources of ignition. Avoid breathing vapors. Use con-sparking tools to return materials to container. Absorb residue with Fuller's earth.

WASTE DISPOSAL METHOD

Conventional procedures in compliance with local, state and federal regulations. Do not incinerate sealed containers.

SECTION VIII - SAPE HANDLING AND USE INFORMATION

PROTECTIVE GLOVIES DISTRIBUTE TO THE PROTECTIVE GLOVIES AND PROTECTIVE GLOVIES DISTRIBUTED TO THE PROTECTIVE GLOVIES DISTRIBUTE TO THE PROTECTIVE GLOVIES DISTRIBUTED TO THE PROTECTIVE

EYE PROTECTION

Safety plasses to protect against splashes.

STHER PROTECTIVE ELVIPMENT

Clothing adequa e to protect skin.

HYGIENIC PRACTICES: Not Applicable

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Consistable - Kee; away from heat and flame.

OTHER FRECAUTIONS

Lie only with adequate vertilation.

Joid prolonged contact with skin and breathing of varier or stray Fig.

Capsemportalizer after each use.

Leep contact critical reach of children.

Do not take internally.

NOTICE Reports have associated permanent brain and remove system damage with presented prolonged overexposure to solvents among persons ensured in the painting and interpolation of the painting and interp

COMPANY Name: SEDUDYAH NUCLEAR PLANT TENNESSE VALLEY SUTHORTY
Applicable APCB Certificate #: (SERVICE BLDS FRINT SPRINT BOOFH)
Product Name: SAFETY BLACK
Product Manufacturer: WARREN PAINT & COUR COMPANY
Usage Data
Daily (gal/day): 0.008
Annual (gal/yr): Z-
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTACHE MSDS
As Received (Concentrated):
Density (lbs/gal):
solids * by Weight: 49.62 * by Volume: 38.74
voc % by Weight: 50.38 % by Volume: 61.26
Water % by Weight: % by Volume:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): % by Volume:
Solids % by Weight: % by Volume:
Voc % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: TURPINTINE
Density (lbs/gal): 7.1
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: Manda & Garage April 2017
11/03/89 RMP

MATERIAL SAFETY DATA SHEET

MANUFACTURER'S NAME:

WARREN PAINT AND COLOR COMPANY

700 WEDGEWOOD AVENUE NASHVILLE, TH 37203

DATE OF PREPARATION: 06/14/89

EMENGENCY TELEPHONE NO.

(615) 292-6655

INFORMATION TELEPHONE NO.

(615) 292-6655

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NUMBER: 2304

PRODUCT NAME : SAFETY BLACK

PRODUCT CLASS : PAINT

HMIS RATINGS: H F R PP

1 2 0 B

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT

WEIGHT OCCUPATIONAL VAPOR PRESSURE
CAS NUMBER PERCENT EXPOSURE LIMITS HG @ TEMP

MINERAL SPIRITS

64742-88-7 50.38 500.00 PPM

HAZARDOUS INGREDIENTS FOLLOWED BY AN ASTERISK (*) ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT TO NOW ACT OF 1986 AND OF 40 CFR 372. DISTRIBUTION OF THS PRODUCT MUST BE ACCOMPANIED BY A COPY OF THIS MSDS.

SECTION III - PHYSICAL DATA

BOILING POINT : 307 DEF F

EVAPORATION RATE : 41.15 (ETHYL ETHER = 1)

VAPOR DENSITY: HEAVIER THAN AIR

VOLATILE VOLUME: 61.26

WT/GAL: 7.70

VOLATILE ORGANIC COMPOUNDS:

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: COMBUSTIBLE - CLASS IIA

LASH POINT: 103 DEG F TCC

This is one maintenance and machine Inamel Zused.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Handle as combustible material. Vapors form an explosive mixture in air between The upper and lower explosive limits which can be ignited by many sources such as pilot lights, open flames, electrical motors and switches, SPECIAL FIREFIGHTING PROCEDURES: Respiratory equipment should be morn to avoid inhalation of concentrated vapors. Hater should not be used sucept as foo to keep nearby containers cool. SECTION V - HEALTH HAZARD DATA EFFECTS OF OVEREXPOSURE! Inhalation-Dizzyness, breathing difficulty, headaches, & loss of coordination. Eye contact-Severe irritation, tearing, redness, and blurred vision. Skin contact-Can dry and detat skin causing cracks, irritation, and dermititis. Ingestion-Can cause oastrointestinal irritation, vomiting, nausea & diarrhea. HEDICAL CONDITIONS PROHE TO AGGRAVATION BY EXPOSURE: Anesthesia, respiratory tract irritation, dermitatis, hausea, vomiting. PRIMARY ROUTE (S) OF ENTRY: DERMAL. INHALATION, INGESTION EHERGENCY AND FIRST AID PROCEDURES: Inhalation overexposure-Hove person to tresh air. If breathing stops, apply artificial respiration and seek immediate medical ettention. Eye contact-flush with large quantities of water for 15 minutes. Skin contact-wash thoroughly with soap and water and see a doctor. Indestion-Do not induce committing, can cause chemical pheumonitis and pulmonary edema. Contact physician immediately. SECTION IV - REACTIVITY DATA STABILITY: STABLE HAZARDOUS POLYHERIZATION: WILL NOT OCCUR HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, oxides of nitrogen. CONDITIONS TO AVOID: Excessive heat, poor ventilation, corrosive atmospheres, excessive aging. INCOMPATIBILITY (MATERIALS TO AVOID): Alkaline materials, strong acids and oxidizing materials. SECTION VII - SPILL OR LEAK PROCEDURES STEPS TO BE TAKEN IN CASE HATERIAL IS RELEASED OR SPILLEDS Eliminate ionition sources, provide good ventiliation, dike spili area and add absorbent earth or sandust to spilled liquid. WASTE DISPOSAL HETHODI Collect absorbent/spilled liquid mixture into metal containers. Consult local, state A rederal hazardous maste regulation before disposing into approved hazardous waste landfills. Obey relevant lans. SECTION VIII - SAFE HANDLING AND USE INFORMATION RESPIRATORY PROTECTIONS When spraying this material use a HIOSH approved cartridge respirator or gas mask suitable to keep airborne mists and vapor concentration below the time-neighted threshold limit values. When using in pourly ventilated and confined spaces, use a fresh-air supplying respirator or a self-contained breathing apparatus. VENTILATION: Ceneral mechanical ventilation or local exhaust should be suitable to keep rapor concentrations below TLV. Ventilation equipment should be explosion proof PROTECTIVE GLOVEST Impermeable chemical handling gloves for skin protection. EYE PROTECTIONS Use chemical sarety plasses, popules, and faceshields for eye protection. OTHER PROTECTIVE EQUIPMENT: Use impermentle aprons and protective clothing whenever possible to prevent skin contact. The use of head caps whenever possible is strongly recommended. HYBIENIC PRACTICES: Eve washes and safety showers in the workplace is recommended. SECTION IX - SPECIAL PRECAUTIONS PRECAUTIONS TO BE TAKEN IN HAMPLING AND STORINGS Use non-sparking utensils when handling this material. Avoid hot metal surfaces Use in cool, nell-rentilated areas, teep containers closed when not in use. keep away from excessive heat and open flames. OTHER PRECAUTIONS:
Smoking in areas where this material is used should be strictly prohibited.
NOTE: This information is accurate to the best involedee of Warren Faint and
Color Co.s but is furnished without any expressed or implied varianties.

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LEUUSSY DAKK IN HI & LUE HATERIAL SAEETY DATA SHEET 0/8798

MANUFACTURER! KLEAN-STRIP, DIVISION OF W.M. BARR & COMPANY

2105 CHANNEL AVENUE P.O. BOX 1879

DATE PREPARED! 10/01/85

MEMPHIS, TENNESSEE

YELEPHONE NUMBER! (901) 775-010

INFORMATION HAN ILING SER. ATTN, KATHLEEN SAMPLE P.O. BOX 1213 I_ENGLEWOOD CO 80150_1

SECTION I - ERODUCT TRENTIETCHION

FORMALA NAMBERI 1683 PRODUCT NUMBER! GT-69

PRODUCT NAME I GUM SPIRITS TURPENTINE KLEAN STRIP

PRODUCT CLASS : THINNER-SOLVENT

___GECTION II - HOZORDOUS INGREDIENTS____ CAS\$ | FERC | OCCUPATIONAL | Variation INGREDIENT WT TEXPOSURE LIMITS! PRESERVE L_TLY___PEN_1hit

| 8003-64-2|(100 |100 ppm|100 ppm|NE . TURPENTINE

SECTION III - EHYSICAL DOTA

EVAPORATION RATE: Slower Than Ether. X VOLATILE: 100.0 LDS/Gal :

SECTION IV - FIRE AND EXELOSION HAZARD DATA

FLAHMABILITY CLASS: OSHA-Class IC FLASH POINT: 94F LEL: 0.8 DOT-Flammable Liquid.

EXTINGUISHING MEDIA: Use Carbon Dioxide, Dry Powder or Foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep container tightly closed. Isolate in hoat, electrical equipment, sparks, open flames and hot surfaces.

SPECIAL FIREFIGHTING PROCEDURES: Self-contained respiratory protection should provided for firefighters fighting fires in buildings or confined areas. Stor. containers exposed to fire should be kept cool with water spray to provent armanura build-up.

SECTION Y - WEALTH WAZARD DATA

PRIMARY ROUTES OF ENTRY: Inhalation _K_ Ingestion _K_ Dermal _K_

EFFECTS OF OVEREXPOSURE - SHORT TERM EFFECTS: INHALATION - May cause headache, distiness and nausea. INGESTION - Not determined. TKIN CONTACT - Not determined. LYE CONTACT - May cause irritation.

EFFECTS OF OVEREXPOSURE - LONG TERM LEFEUTS: Prolonged or repeated contact may cause dermatitis. Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Aires

710 UJU11 CH

1266339 BARR (W M) & CO.

MEDICAL CONDITIONS FROME TO AGGRAVATION BY OVEREXPOSURE! None recognized.

EMERGENCY AND FIRST AID PROCEDURES:

spek immediate medical attention.

TMINIATION - If user experiences breathing difficulty, move to air free of spore. Administer exygen or artificial respiration until medical desistance corrected condered.

INCESTION - Call your hospital emergency room, poison control center or physician immediately for instructions.

GKIN CONTACT - Wash with soap and large quantities of water and seek medical

attention if irritation from contact persists.

EYE CONTACT - Flush with large quantities of water for at least 15 minutes and

GEGION VI - SEACILVITY DATA

HAZARDOUS FOLYMERIZATION: Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS: None recognized.
INCOMPATIBILITY (MATERIAL TO AVOID): Strong oxidizing agents.

SECTION VII - SEILL AND LEAK EDOCEDURES....

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED! Avoid breathing vapors. Ventilate area. Flush large spills of material into suitable retaining area or containers with large quantities of water. Small spills can be absorbed by appropriate inert absorbed.

WASTE DISPOSAL: Dispose in accordance with applicable local, state and federal regulations.

SECTION VIII - SEECIAL ENGIECTION INFORMATION ...

RESPIRATORY PROTECTION: For DSMA controlled work place, use only with adequate ventilation under engineered air control systems designed to provide maximum appropriate TLV. For occasional use where engineered air control is not feasible, use NIOSH approved respirators. For occasional consumer use, use out. with adequate ventilation.

VENTILATION: Adequate ventilation must be provided. See respiratory protection above.

PROTECTIVE GLOVES: Use impermeable gloves to prevent skin irritation.

EYE PROTECTION: Safety glasses, chemical goggles and/or face shields are recommended to safeguard against potential eye contact, irritation or injury.

OTHER PROTECTIVE EQUIPMENT: Varying application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc.

HYGIENIC PRACTICES: Wash hands thoroughly after use.

SECTION IX - FRECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IM HANDLING AND STURAGET Do not store near flames . . .

THER PRECAUTIONS: Read carefully all cautions and directions on product issued afore use. Since empty container retains residue, follow all tabel warnings even after container is empty. Dispose of empty container according to local regulations.

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HOTE: THE INFORMATION CONTAINED MEREIN IS FURNISHED WITHOUT WARRANTY OF ANY KIND. EMPLOYERS SHOULD USE THIS INFORMATION ONLY AS A SUPPLEMENT TO OTHER INFORMATION GATHERED BY THEM AND MUST MAKE INDEPENDENT DETERMINATION OF SUITABILITY AND COMPLETENESS OF INFORMATION FROM ALL SOURCES TO ASSURE PROMER USE OF THESE MATERIALS AND THE SAFETY AND HEALTH OF EMPLOYEES. ANY USE OF THIS DATA AND INFORMATION MUST BE DETERMINED BY THE USER TO BE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAUS AND RECULATIONS.

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E106 FORM FOR HYDRAZINE TANK VENT

FORM: B106

1.	Name of Company (as shown on Line 1, Form E001): SEQUOYAH NUCLEAR
	PLANT, TENNESSEE VALLEY AUTHORITY
2.	Equipment Name (as shown on Line 10, Form E001): HYDRAZINE TANK VENT
3.	Type of pollutant for which estimation is made: HYDRAZINE
4.	Pollutant Emission Factor (PEF): O.089 /bs/cf (Give value & units in 1bs/ton, 1bs/lbs, 1bs/gal,gr/ft ³ , etc.)
	Source of Emission Factor:
5.	Uncontrolled Pollution Emission Rate: O.089/bs/cf x (0.5 cfm) (60 min/hr) (0.75 he) = 2/65/hr (PEF from Item 4) (Give operating rate for this equipment and the appropriate units in either lbs/hr, tons/hr, gal/hr or CFM)
6.	Uncontrolled Pollution Emission Rate: Z lbs emitted/hr (from Item 5 convert to lbs/hr)
and	This is to certify that I am familiar with the operations concerning this equipment that the information provided on this application is true and complete to the best my knowledge. This form must be completely filled out before acceptable.
Al 35	Company Official: Management of Enuralment o
	DO NOT WRITE BELOW THIS LINE
	Engineer Approval
Thi	s form corresponds to permit number:
Spe	cial Notations:

E106 FORM FOR AMMONIA TANK VENT

POLLUTION ESTIMATION FORM

FORM: E106

Name of Company (as shown on Line 1, Form E001): 5 = 000YAM 1)0CLEAR PLANT , TENNESSEE VALLEY AUTHORITY 2. Equipment Name (as shown on Line 10, Form E001): AMMODIA TANK VENT Type of pollutant for which estimation is made: Hmminia Pollutant Emission Factor (PEF): 0.044/6s/cf
(Give value & unité in lbs/ton, lbs/lbs, lbs/gal,gr/ft3, etc.) Source of Emission Factor: LINDE SPECIALTY GASES SAFETY AND EMERGENCY PROCEDURES Uncontrolled Pollution Emission Rate: (PEF from Item 4) (Give operating rate for this equipment (Give value & unit and the appropriate units in either lbs/hr, tons/hr, gal/hr or CFM) Uncontrolled 6. Pollution Emission Rate: O.64 165/hr lbs emitted/hr (from Item 5 convert to lbs/hr) This is to certify that I am familiar with the operations concerning this equipment and that the information provided on this application is true and complete to the best of my knowledge. This form must be completely filled out before acceptable. Company Official: Markhaur ner Mail To: Title: MANNER OF ENVIRONMENTAL QUALITY CHATTANOOGA-HAMILTON COUNTY AIR POLLUTION CONTROL BUREAU 3511 Rossville Boulevard Date: 7-12-89 Chattanooga, Tennessee 37407 DO NOT WRITE BELOW THIS LINE Engineer Approval This form corresponds to permit number: Special Notations:

ENCLOSURE 7

USAGE DATA AND MATERIAL SAFETY DATA SHEETS FOR COATINGS AND THINNERS USED AT THE CONSTRUCTION SANDBLAST AND PAINT SHOP

LISTING OF COATINGS AND THINNERS USED AT THE CONSTRUCTION SANDBLAST AND PAINT SHOP

PRODUCT	QUANTITY USED
Carboline Number 33 Thinner Carboline Carbo-Zinc Nutec 6 Nutec 1201 Enamel Paint (PPG Industries and Sherwin-Williams Co.) Varsol	260 gallons 220 gallons 5 gallons 5 gallons 30 gallons 50 gallons
TOTAL	600 gallons

Note: Material Safety Data Sheets are attached except for Carboline Carbo-Zinc which was provided earlier.

FORM: E106

1.	Name of Company (as shown on Line 1, Form E001): SEQUEYAH NUCLEAR IZANT
	TENNISSEE VALLEY AUTHORITY
2.	Equipment Name (as shown on Line 10, Form E001): CONSTRUCTION SAND BUST AND PAINT SHOP WITH TWO BUILDING ROOF EXHOUSTERS
3.	Type of pollutant for which estimation is made: VOC
4.	Pollutant Emission Factor (PEF): 5,3 LBS VOC /GBLLON OF PAINT (Give value & units in lbs/ton, lbs/lbs, lbs/gal,gr/ft3, etc.)
	Source of Emission Factor: SE ATTACHMENT 1
5.	Uncontrolled Pollution Emission Rate: 5.3 L35/GAL × (600 TR) (7000 HR) (Give operating rate for this equipment and the appropriate units in either lbs/hr, tons/hr, gal/hr or CFM) (Give value & units)
6.	Uncontrolled Pollution Emission Rate: 3 LB5/HR lbs emitted/hr (from Item 5 convert to lbs/hr)
of	This is to certify that I am familiar with the operations concerning this equipment that the information provided on this application is true and complete to the best my knowledge. This form must be completely filled out before acceptable. Company Official:
CH Al 35	AND THE POLLUTION CONTROL BUREAU SIGNATURE FOR Title: MANAGER OF ENVIRONMENTAL QUALITY MANAGER OF ENVIRONMENTAL QUALITY Date: 7-12-89
	DO NOT WRITE BELOW THIS LINE
	Engineer Approval
Thi	s form corresponds to permit number:
Spe	cial Notations:

COMPANY NAME: SERVOYAH NICLEAR PLANT TENNESSEE VALLEY AUTHORITY
Applicable APCB Certificate #: (CONST SAM) BUSTING & PAINT SHOP)
Product Name: CARBO ZINC
Product Manufacturer: CARBOLINE COMPANY
Usage Data
Daily (gal/day): 275/260 Per = 1.0
Annual (gal/yr): $275 = 220 + (4)220$
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: SEE ATTACHED M SD5
As Received (Concentrated): (Note: Provided WITH MARCH 1, 1989 APPLICATION
Density (lbs/gal): 21.5
Solids % by Weight: 80 % by Volume: 40
voc % by Weight: 20 % by Volume: 60
Water % by Weight: O % by Volume: O
As Applied (Diluted): 1/4
Density (lbs/gal): 12.3 & by Volume:
Solids % by Weight: 57 % by Volume: 30
voc % by Weight: 43 % by Volume: 70
Water % by Weight: O % by Volume: O
Thinner Data
Chemical composition: AROMOTIC HYDROCORRON, ETHYLENE GLYCOL NOVOBUTYL & MONDETHYL ETHER
Density (lbs/gal): 7.4 Mono Ethy L ETIER
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Sources Method 24 must be use1.
This is to certify that this information is true and complete to the best of my knowledge. Signature: MANAGER OF ENVIRONMENTAL OPERTY 11/03/89 RMP

Company Name: SQUOYAH NUCLEAR PLA	INT TENNESSE VALLEY SUTHORITY
Applicable APCB Certificate #: (SCRVI	E BUS PRINT SHOP BOOM)
Applicable APCB Certificate #:	22 70/1/2
Product Name: CARBOUNE NUMB	
Product Manufacturer: CARBOLINE	COMMANY
Usage Data	
Daily (gal/day): 205/260	The same and the same and the same of the same and the sa
Annual (gal/yr): $(260-55)=$	205 CLEAN-UP SOLVENT
	I CARBO ZINC AS THINKER
Analysis or Manufacturera Certific	cation Data*: See Arracato MSDS
As Received (Concentrated): NA	
Density (lbs/gal):	
Solids % by Weight:	% by Volume:
VOC % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
As Applied (Diluted): NA	
Density (lbs/gal):	% by Volume:
Solids % by Weight:	% by Volume:
Voc % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data ETHYLENE	GLYCOL MONDETHYL ETHER
Chemical Composition: ETHYLWE G	LYCOL MONDBUTYL ETHER
Density (1bs/gal): 7.4	
Mfr. Data Sheet or Certification	is attached. YesNo
*For NSPS Sources Method 24 must be	used.
This is to certify that this information best of my knowledge.	nature: Manage of avient that paying
11/03/89	

MATERIAL SAFETY DATA SHEET

=#: 116 FOR COATINGS, RESINS AND RELATED MATERIALS (Approved by U.S. Department of Labor as "Essentially Similar" to Form OSHA-20)

12/82 REPLACES: DATE OF PREP .: 1/84

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Section

MANUFACTURER'S NAME: .. Carboline Company

STREET ADDRESS: 350 Hanley Industrial Court CITY, STATE AND ZIP CODE: St. Louis, MO 63144

EMERGENCY TELEPHONE NO.: 314-644-1000

INFORMATION TELEPHONE NO.: 314-644-1000 ---

PRODUCT CLASS: Solvent Blend

MANUFACTURER'S CODE IDENTIFICATION

TRADE NAME: Carboline Thinner #33 /7 533/4A75

		INGREDIENT	Section II H	PERCENT	INGREDIENTS CCCUPATIONAL EXPOSURE LIMITS (TLV@-TWA)	VAPOR PRESSURE mm/Hg	TOXICITY
Aromatic			上門方言	50	100ppm	3.0	
Ethylene	Glycol t	Monobutyl Ether	- Comment of the same	25	50ppm	0.0	1377
Ethylene	Glycol 1	Monethyl Ether	至	25	5ppm	3.8	0.05

Section III -- PHYSICAL DATA

BOILING RANGE: 275-340°F

VAPOR DENSITY:

₩ HEAVIER, D LIGHTER, THAN AIR

EVAPORATION RATE: D FASTER. SLOWER. THAN ETHER PERCENT VOLATILE

WEIGHT PER

BY VOLUME: 100

GALLON: 7.4 ± 0 37

I .Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION . -- 4.2 (OSHA): Combustible Liquid - Class II FLASH POINT

(PMCC): 101°F

EXTINGUISHING MEDIA: Use dry chemical or chemical foam suitable for solvents shown.

with the new of the parameter graduate the review every to a temperature evitations and

UNUSUAL FIRE AND EXPLOSION HAZARDS: Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat. Water may be

used to cool closed containers to prevent pressure build-up and possible autoignition or

explosion when exposure to extreme heat is present.

CARBOLINE - CARBOLINE THINNER

CODE: 533/4A75

Section V -- HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE

Inhalation: Irritation to respiratory tract; headache, dizziness and nausea. Skin or Eye Contact: Primary irritation.

EMERGENCY AND FIRST ALD PROCEDURES

Inhalation: Remove to fresh air. Restore breathing. Consult a physician.

Eye Contact: Flush immediately with large amounts of water. Consult a physician.

Skin Contact: Remove coating with solvent. Immediately wash affected area with soap and water. Consult a physician if irritation persists.

Section VI -- REACTIVITY DATA

STABILITY: O UNSTABLE & STABLE

CONDITIONS TO AVOID: Unknown

INCOMPATABILITY (Materials to avoid): None reasonably foreseeable HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2, possibly aldehydes

HAZARDOUS POLYMERIZATION: D MAY OCCUR WILL NOT OCCUR

Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL RELEASED OR SPILLED: Avoid breathing solvent vapors. Ensure adequate ventilation. Avoid sparks, flames and anything which could cause fire.

WASTE DISPOSAL METHOD: Soak liquids with sawdust or rags. Remove. Flush with water if possible. Avoid skin contact. Disposal should be in accordance with local, state and federal regulations.

Section VIII -- SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH/OSHA approved respirator types suitable for materials in Section II recommended. Approved chemical/mechanical filter recommended when ventilation is restricted. Approved air line type respirators or hoods recommended in confined areas.

VENTILATION: Sufficient ventilation, in volume and pattern, should be provided to keep air contamination below current applicable OSHA permissible exposure limit or ACGHI's TLV® limit.

PROTECTIVE GLOVES: Protective gloves recommended.

EYE PROTECTION: Chemical goggles with side shields or face shields recommended.

OTHER PROTECTIVE EQUIPMENT: Protective creams and clothing recommended to avoid skin contact.

Section IX -- SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a cool, dry area with ventilation suitable for storing materials shown in Section II.

OTHER PRECAUTIONS: Provide respiratory protection against smoke and fumes generated during burning or dusts generated during removal of dry coatings.

29 CFR Parts 1915, 1916 and 1917 require the preparation of this Material Safety Data Sheet.

COMPANY Name: SERVOYAH NOCHER PLANT TONNESSEE VALLEY AUTHORITY
Applicable APCB Certificate #: (CONST SAM) BUSTING & PAINT SHOP)
Product Name: NUTEC #6 EROXY STEEL PRIVER
Product Manufacturer: TMPERIAL COATINGS CORP, THE
Usage Data
Daily (gal/day): $5/260 = 0.02$
Annual (gal/yr): 5
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See Decided M SDS
As Received (Concentrated):
Density (1bs/gal):
solids % by Weight: 70 % by Volume: 75.8
voc % by Weight: % by Volume: 24.2
Water % by Weight: % by Volume:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): % by Volume:
Solids % by Weight: % by Volume:
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data CURF
Chemical Composition: CALGOLVE SCETATE, XYLOL, POLYAMIDE, MAGNESIUM SILICATE
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Scurces Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: MANAGER OF ENVIRONMENTAL OLDUM
11/03/89 RMP



MATERIAL SAFETY DATA SHEET 003156

NPCA 1-7

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

ATE OF PREP v.033178

Section !

MANUFACTURER'S NAME

IMPERIAL COATINGS CORPORATION, INC.

STREET ADDRESS

16362 Chef Menteur Highway,

EMERGENCY TELEPHONE NO.

(504) 254-1433

PRODUCT CLASS

Epoxy Polyamide

TRADENAME Nutec #6 Epoxy Steel Primer

CITY, STATE, AND ZIP CODE

New Orleans, Louisiana

MANUFACTURERS CODE IDENTIFICATION

#6

	Section	II - HAZARDOUS I	NGRED	ICIVIO		1
INGREDIE	NT	PERCENT	TLV PPM mg/m³		LEL	VAPOR PRESSURE
Base:	Ероху	25	-	11.4 g/kg Oral LD ₂ 50	-	-
	Micaceous Pigment	10	-	176mp/m3	-	-
	Strontium Yellow	5	-	176mp/m	-	
	Magnesium Silicate	30	-	176mp/m	-	-
	Xylol	10	100	435	1.0	9.5
	Cellosolve	5	100	740	2.6	3.7
	MIBK	10	100	410	1.2	15.2
	Aromatic Naphtha	_5	200	-	1.0	4.4
Cure:	Cellosolve Acetate	15	100	540	1.7	1.2
THE REAL PROPERTY.	Xylol	15	100	435	1.0	9.5
	Polyamide	30	-		-	-
	Magnesium Silicate	40	-	176mp/m ³	-	-

Section III - PHYSICAL DATA

BOILING RANGE 237°F to 277°F.

VAPOR DENSITY

HEAVIER.

LIGHTER, THAN AIR

* EVAPORATION RATE

FASTER

X SLOWER, THAN ETHER

PERCENT VOLATILE 24.2

WEIGHTPER

12.3 lbs.

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOTCATEGORY FLAMMABLE - Less than 100 F.

FLASH POINT

68°F.

LE. 1.1

EXTINGUISHING MEDIA

Use National Fire Protection Class B extinguisher, CO2, dry chemical or foam designed to extinguish Class IB liquid fires.

UNUSUAL FIRE AND EXPLOSION HAZARDS Keep containers tightly closed. Isolate from heat, electrical equipment, spark, and open flame. Closed containers may explode when exposed to extreme heat. Do not apply to hot surfaces. Paint vapors can cause violent explosion. When applying in nclosed area, supply sufficient ventilation to keep vapors below LEL level.

SPECIAL FIRE FIGHTING PROCEDURES Water spray may be ineffective.

Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. If water is used, fog nozzles are required.

	Section V — HEALTH HAZARD DATA
	THRESHOLDLIMIT VALUE See Section II.
	Inhalation: Anesthetic irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma.
	Skin and Eye Contact: Primary irritation.
	EMERGENCY AND FIRST AID PROCEDURES Fumes: Remove from exposure. Restore breathing. Keep warm and quiet. Notify a physician. Splash (Eyes): Flush immediately with copious quantities of running water for at least 15 minutes. Take to a physician for definitive medical treatment. Splash (Skin): Wash affected areas with water. Remove contaminated clothing. Consult a physician.
eru eru	Section VI — REACTIVITY DATA
	STABILITY X UNSTABLE CONDITIONS TO AVOID Flame, high heat and moisture. INCOMPATABILITY (Materials to avoid) HAZARDOUS DECOMPOSITION PRODUCTS CO, CO, Aldehydes, NO, amide monomer.
	CONDITIONS TO AVOID Excessive heat after mixing component may cause fast polymerization.
-	Section VII — SPILL OR LEAK PROCEDURES
P	STEPS TO BE TAKENIN CASE MATERIAL IS RELEASED OR SPILLED Remove all sources of ignition (flames, hot surfaces, and electrical, static, or frictional sparks). Avoid breathing vapors, ventilate area. Remove with inert absorbent and non-sparking tools. WASTE DISPOSAL METHOD Dispose in accordance with Local, State, and Federal regulations. Incinerate in approved facility. Do not incinerate closed containers.
11	Section VIII — SPECIAL PROTECTION INFORMATION
1 1 1 1	RESPIRATORY PROTECTION In outdoor or open areas, use Bureau of Mines, approved mechanical filter respirator to remove solid or airborne particles or overspray during spray application. In restricted ventilation areas, use Bureau of Mines approved chemical-mechanical filters designed to remove a combination of particles, gas and vapor. In confined areas, use Bureau of Mines approved airline type respirators or hoods.
And the state of t	DVENTILATION Provide general dilution or local exhaust ventilation in volume and pattern to keep TLV of most hazardous ingredient in Section II below acceptable limit, LEL in Section IV below stated limit and to remove decomposition products during welding or flame cutting on surfaces coated with this product. PROTECTIVE GLOVES Required for prolonged or repeated contact. EVE PROTECTION Use safety eye wear designed to protect against splash of liquids. OTHER PROTECTIVE EQUIPMENT Prevent prolonged skin contact to contaminated clothing.
-	Section IX — SPECIAL PRECAUTIONS
And in control of the	PRECAUTIONS TO BE TAKEN IN HANDLING AND STOWING Do not store above 120°F. Store large quantities in buildings designed and protected for storage of NFPA Class I combustible liquids. OTHER PRECAUTIONS Do not take internally. Do not flame cut, braze, or weld without U.S. Bureau of Mines approved respirator or appropriate ventilation.
of i	

Company Name: SERVOYAR NICLEAR PLANT	TENNESSE VALLEY AUTHORITY
Applicable APCB Certificate #: CONST	SAMD BLASTING & PAINT SHOP)
Product Name: NUTEC # 1201 PA	ART A & PART B
Product Manufacturer: IMPERIAL	COATING GORP THE
Usage Data	
Daily (gal/day): 5/260 = C	5.02
Annual (gal/yr): 5	
Rule 25.43 & 25.44	
Analysis or Manufacturers Certificati	on Data*: SEE DITTACKED M SDS
As Received (Concentrated):	
Density (lbs/gal)://.	5
Solids % by Weight: 74.5	
voc % by Weight: 25.5	% by Volume: 44.5
Water % by Weight:	hy Volume: O
As Applied (Diluted): SAME AS	
Density (lbs/gal):	
Solids % by Weight:	
voc % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data	
Chemical Composition: NA	
Density (lbs/gal):	
Mfr. Data Sheet or Certification is a	ttached. YesNo
*For NSPS Sources Method 24 must be used	
110	/ and Mr. Mills and a state of the state of

11/03/89 RMP FATERIAL SAFETY DATA SHEET FOR COATINGS, RESINS, AND RELATED MATERIALS

IMPERIAL COATINGS 1401 S. Hanley Road St. Louis: MO 63144

INFORMATION TELEPHONE NO. CHEMTREC EMERGENCY TELEPHONE NO. (800)-424-9300 DATE OF PREPARATION:

(314) 644-1000 09/22/86

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: MUTEC #1201 PART A PRODUCT NAME: NUTEC #1201 PART B

PRODUCT CODE: 09-5903-A(L) PRODUCT CODE: 09-5903-B(L)

PRODUCT CLASS: EPOXY POLYAMIDE

HMC 2428

SECTION II - HAZARDOUS INGREDIENTS

PART A	IGHT PERCE PART B	MIXED	EXPOSURE L (TLV8-TUA)	IMITS (PEL)	VAPOR PRESSURE 20°C sel/Hg
\18	- CNY	\1%	D. (Fina/m	1.0mg/m	NOVE
				100 ppm	21.0
				D.1mg/m	NOTE
					90.0
				NOE	38.0
				200 ppm	3.8
					40.0
					10.0
					7.5
					0.01
					1.0
	71A				
AKUS OK WHEN KEPA	MING CTKED	Court Inco St			NONE
>17.	0%	>17.	6mg/m	15mg/m	NIVE
	PART A >17. >17. >17. >17. >17. >17. >17. >17	PART A PART B >17.)17.	PART A PART B MIXED (TLV8-TUA) >17.	PART A PART B MIXED (TLV8-TWA) (PEL) >17. D7. >17. D.05mg/m 1.0mg/m >17. D7. >17. 100 ppm 100 ppm >17. D7. >17. D.05mg/m D.1mg/m >17. D7. >17. D.05mg/m D.1mg/m >17. D7. >17. Z00 ppm 400 ppm >17. D7. >17. 100 ppm NOXE >17. D7. >17. 100 ppm NOXE >17. D7. >17. 50 ppm 200 ppm >17. D7. >17. 50 ppm NOXE >17. D7. >17. S0 ppm NOXE >17. D7. >17. S0 ppm NOXE >17. >17. >17. 100 ppm NOXE >17. >17. >17. 100 ppm NOXE NOXE NOXE D7. >17. >17. NOXE NOXE D7. >17. >17. 100 ppm NOXE NOXE D7. >17. >17. 17. 100 ppm NOXE NOXE

* - IHLS RAW MATERIAL IS A CARCINOGEN OR A SLEFFECTED CARCINOGEN.

SECTION 111 - PHYSICAL DATA

301LING RAVE: 190 - 346°F MIXED WEIGHT/GALLON: 10 - 13 LBS./GAL. (U.S.)

VOLATILE BY WEIGHT: 24 - 27% VOLATILE BY VOLUME: 43 - 45%

VATUR DENSITY: IS LIGHTER THAN AIR. EVAPORATION RATE: IS 3 CLER THAN ETHER.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: (DSHA): PT. A - FLAMMABLE LIQUID - CLASS IB . PT. B - FLATMABLE LIQUID - CLASS IC

FLASH POINT: (PMCC) PT.-A: "35"F PT. B: ED*F

(DOT) : PT. A - FLAMMABLE LIQUID OR SOLID PT. B - FLATTABLE LIQUID OR SOLID

JUG 25 1987

EXTINGUISHING MEDIA: ORY GEMICAL, WATER FOG OR OTHER MEDIA BUITABLE FOR SOLVENTS IN SECTION 11.

ULBUL FIRE AND EXPLOSION HAZARD: KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM LEAT, SPARKS, ELECTRICAL EQUIPMENT, AND OPEN FLAYES. CLOSED CONTAINERS MAY EXPLOSE WEN EXPOSED TO EXTREME HEAT.

SPECIAL FIRST IGHTING PROCEDURES: WATER MAY BE USED TO COOL CONTAINERS TO FREVENT FRESSURE BUILD-UP AND POSSIBLE AUTO-IGNITION OR EXPLOSION WEN DROSED TO EXTREME HEAT. IF WATER IS USED, STRAY MOZZLES ARE PREFERABLE. WATER STRAY MAY BE INEFFECTIVE.

SECTION V - HEALTH HAZARD DATA

OF OVER EXPOSURE: INHALATION: IRRITATION TO THE RESPIRATORY TRACT, HEADAGH, DIZZINESS, AND NAUSEA AND POESIBLE. SKIN CONTACT: PRIMARY ION. EYE CONTACT: PRIMARY IRRITATION. LEAD CHROMATE IS A SLEPECTED CARCINOGEN. WEAR APPROPRIATE RESPIRATURY PROTECTION TO PREVENT INHALATION OF OLER-SPRAY AND APPROPRIATE PROTECTIVE CLOTHING TO PREVENT SKIN CONTACT. EXCESSIVE CHRONIC LONG-TERM EXPOSURE TO LEAD MAY CALSE A METALLIC TASTE IN THE MOUTH, LOSS OF AFFETITE, INDICESTION, NALSEA, VOMITTING, CONSTIPATION, ADDOMINAL CRAYPS, SEPTEMBERS AND LEAVNESS. ALXYL AMINES (I.E. DISTIMLEDE TRIAMINE) ARE SKIN SENSITIZERS. AVOID SKIN CONTACT AND INHALATION BY LEARING APPROPRIATE PROTECTIVE CLOTHING, RESPIRATORS, AND EYE PROTECTION. 2-ETHOXYETHWIDL AND 2-ETHOXYETHWIDL ACETATE CAN BE ASSORBED AFTER ORAL, SKIN, OR INHALATION EXPOSURE, AND CAN CALSE TOXICITY IN INTERNAL

SECTION V - HEALTH HAZARD DATA - cont.

PROME SICH AS BLOOD, LIVER, KIDNEYS, AND TESTES. SOME STUDIES INDICATE LONG-TERM CHRONIC EXPOSURE TO 2-ETHOXYETHANOL AND 2-ETHOXYETHANOL AND 2-ETHOXYETHANOL ACETATE MAY ROULD TIVE DISORDERS.

EDICAL CONDITIONS PROVE TO AGERAVATION BY EXPOSITE: LINKNOWN.

PRIMITY RIVIE(S) OF ENTRY: DERIVAL AND INHALATION.

EMPLIDICY AND FIRST AID PROCEDURES: INHALATION:REMOVE TO FRESH AIR AND RESTORE BREATHING. TREAT SYMPTOMATICALLY AND CONSULT A PHYSICIAN. SXIN CONTACT:REMOVE COATING WITH SULVENT. IMMEDIATELY WASH AFFECTED AREA WITH SOAP AND WATER. CONSULT A PHYSICIAN IF IRRITATION PERSISTS. EYE CONTACT:FILLEH IMMEDIATELY WITH LARGE AMOUNTS OF WITER FOR AT LEAST 15 MINUTES. TAKE TO A PHYSICIAN FOR MEDICAL TREATMENT. INVESTION:ORINK 1 OR 2 SLASSES OF WATER TO DILLITE. DO NOT INDUCE VOMMITING. CONSULT A PHYSICIAN OR POISON CONTROL CENTER. FOR CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, SORPLOSION, OR ACCIDENT CALL CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, SORPLOSION, OR ACCIDENT CALL CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, SORPLOSION, OR ACCIDENT CALL CHEMICAL CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, SORPLOSION, OR ACCIDENT CALL CHEMICAL CHEMICAL CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, SORPLOSION, OR ACCIDENT CALL CHEMICAL CHEMICAL CHEMICAL CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, SORPLOSION, OR ACCIDENT CALL CHEMICAL CHEMI

SECTION VI - REACTIVITY DATA

STABILITY: THIS PRODUCT IS STABLE UNDER NORMAL STORAGE CONDITIONS.

HAZARDOUS POLYMETIZATION: WILL NOT OCCUR UNDER NORMAL CONDITIONS.

HAZARDOLIS DECOMPOSITION PRODUCTS: CARBON MONOXIDE; CARBON DIOXIDE; AND POSSIBLY ALDERTOES.

CONDITIONS TO AVOID: ALSO MAY PRODUCE FUMES WHEN HEATED TO DECOMPOSITION, AS IN WELDING. FUMES MAY CONTAIN OXIDES OF METALS LISTED IN SECTION ALL.

INCOMPATIBILITY (MATERIALS TO AVOID): NOVE RESONABLY FORSEABLE.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: AVOID BREATHING SOLVENT VAPORS. ENEURE ADEQUATE VENTILATION. AVOID SPARKS, FLAMES AND

WHITE DISPOSAL METHOD: SDAK LIQUIDS WITH SAUDLET OR RAGE AND REMOVE. FLUEH WITH WATER IF POSSIBLE. AVOID SKIN CONTACT AND DISPOSE OF IN ACCORDANCE JUTH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: NICE-VOS-4A APPROVED RESPIRATOR TYPES SUITABLE FOR MATERIALS IN SECTION II RECOMMENDED. APPROVED CHEMICAL MECHANICAL FILTERS RECOMMENDED WHEN VENTILIATION IS RESTRICTED.

VENTILATION: SUFFICIENT VENTILATION, IN VOLUME AND PATERN, SHOULD BE PROVIDED TO KEEP AIR CONTAMINATION BELOW CLASSENT APPLICABLE CS-A PERMISSIBLE EXPOSURE LIMIT OR ACCHIES THE LISTED IN SECTION II.

PROTECTIVE GLOVES: PROTECTIVE GLOVES RECOMEDED.

EYE PROTECTION: DEMICAL GOGRES WITH SIDE SHIELDS OR FACE SHIELDS RECONTENDED.

OTHER PROTECTIVE EQUIPMENT: ARDITECTIVE CREATS AND CLOTHING RECOTTENCED TO AVOID SKIN CONTACT.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: STORE MATERIAL IN A COOL DRY AREA WITH VENTILATION SUITABLE FOR STORING MATERIALS SHOWN IN SECTION II.

CAUTIONS: PROVIDE RESPIRATORY PROTECTION AGAINST STOKE AND FUTES GENERATED CLRING BLINNING OR CLSTS GENERATED CLRING REMOVAL OF DRY COATINGS.

29 OFR PARTS 1915:1916, A'D 1917 REQUIRE THE PHEPARATION OF THIS MATERIAL SAFETY DATA SHEET.

COMPANY Name: SEQUOYALT NUCLEAR PLANT TENNESSEE VALLEY AUTHOUTY
Applicable APCB Certificate #: (CONST SOND BLAST & POINT SHEP W/TWO BOG ROUF E
Product Name: INDISTRIAL GNAMEL
Product Manufacturer: THE SHEWIN - WILLIAMS CO
Usage Data
Daily (gal/day): 2/766=0.008
Annual (gal/yr): 30/15 = 2
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTACHE MSDS
As Received (Concentrated):
Density (1bs/gal): 8.86
Solids & by Weight: 60 & by Volume: 42,5
voc % by Weight: 40 % by Volume: 57.!
Water % by Weight: % by Volume:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): t by tolume:
Solids % by Weight: % by Volume:
Voc % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: \sqrt{A}
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: Manage of ENVIRON METAL QUALITY
11/03/89 RMP

197.04.25 10:54

B54 W 102

HATERIAL SAFETY DATA SHEET FOR COATINGS, RESINS AND RELATED MATERIALS

12 (Approved by U.S. Department of Labor 'Essentially Similar' to form OSHA- :

904

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY

101 Prospect Avenue N.W. Cleveland, Ohio 44115

DATE OF PREPARATION

5-Mar-86

EMERGENCY TELEPHONE NO.

(216) 366-2917

APR 2:3 1987

INFORMATION TELEPHONE NO. (216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER

854 W 102

PRODUCT NAME

Industrial Enamel, Midtone Base

PRODUCT CLASS

Alkyd Enamel

Section II -- HAZARDOUS INGREDIENTS

PERCENT TLU-PPM TLU-MG/M3 LEL V.P. CAS No. INGREDIENT

64742-47-8 Mineral Spirits.

* - Trade Mark

40 100. 581. 1.0 2.0

Section III -- PHYSICAL DATA

EVAPORATION RATE -- Slower than Ether VAPOR DENSITY -- Heavier than Air

BOILING RANGE (F) % VOLATILE VOLUME

WT/GAL

300 - 395

57.1

8.96

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH FOINT 101 F PMCC LEL 1.0

Combustible, Flash above 99 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Fosa

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sporks, and open flame. Clased containers way explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equip ont including self-contained treathing apparatus should be used. Water spray may be ineff. live. If water is used, for nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoisnition or explosion when exposed to extreme heat.

Industrial Enamel, Midtone Base

Pess 3

Siction IX -- PRECAUTIONS

DOL STORAGE CATEGORY -- 2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Contents are COMBUSTIBLE. Keep away from next and over flame.

Consult OFPA Code. Use approved Bonding and Irounning procedures.

Keer container closed when not in use. Transfer only to approved containers with complet and appropriate labelins. Do not take internally. Keep out of the reach of children. OTHER PRECAUTIONS

This coating contains materials classified as nuisance particulates, for example titanium dioxide, calcium carbonate, etc. (see ACGIH TLV List, Pratace and Appendix D), which as we arresent at hazardous levels only during sanding or abrading of the dried film.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially after the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

COMPANY Name: SEQUOYAH NUCLOUR PLANT TENNESSEE VALLEY AUTHORITY
Applicable APCB Certificate #: (GNST SAW BLAST & PANT SHOP W/TWO BLOG ROW
Product Name: INDUSTRIAL FLAMEL
Product Manufacturer: THE SHIRWIN- WILLIAMS GO
Usage Data
Daily (gal/day): 4760 = 0.008
Annual (gal/yr): $\frac{30/15}{2}$
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTACHED MSDS
As Received (Concentrated):
Density (lbs/gal):
solids % by Weight: 55 % by Volume: 42
voc % by Weight: 45 % by Volume: 58
Water % by Weight: % by Volume
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): % by Volume:
Solids % by Weight: % by Volume:
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: NA
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: Mandal of Environ Martin QUALITY
11/03/89

RMP

EATERIAL SAFETY DATA SEERT FOR COATINGS, RESINS AND SELATED MATERIALS TOR COATINGS, RESINS AND SELATED MATERIALS

SAMUFACTURE'S MAKE
THE SKIRCTH WILLIAMS COMPANY
JOI PT 10401 JUNE 1813
SET OF PRIVARATION
THOSE 141
SECTION I - FROM

INFORMATION TELETRICHE NO. (216) 584-1 72

Section 1 -- FRONCT IDENTIFICATION

SERVICE II -- RAIABOGUS IMOREVIRMES 96742-47-8 Simeral Spirite. 15-43 100 500 FFS 13463-47-7 Titariam Giseide. 5-25 10 82-23 1308-36-9 Chromium Getide 0-5 4,56 NET ar GRAC FFF ar GRAC Histor carrianges 1.0

0.0-1.3 0.50 Mg/H3

F) A TH Warfs - Sever has Elms VAPO SPRITT - Severer has Air SPILL 1 - 14 TH Warfs - Severer has Air SPILL 1 - 14 TH WARFS - 16 TH SPILL 1 - 14 TH SPILL 1 - 1 LOCALOR IV -- FIRE AND EXPLOSION RASARD DATA

FINANCE LET CLASSIFICATION FLAME FOIRT 101 F PRCC LEL 1.0
Comburtible, Flame above 97 and helm 100 F
XYFINGUISHEM ARDIA.
Carene Disside, Der Chemical, Fone
UNUSUAL FIRE AND EXPLOSION MARKER
Less containers signify classed. [smiste from heat, alectrical onvipement, spacks, and spec
flame. Classed containers may sepadate when exposed to mitrace heat. As itselfone to that
Particular continues appecial productions. During swengamor conditions orangements in
Accempanishing products from transcriptures. Obting swengamor conditions orangements in
Obtinis medical attention.

E-SEER Industrial recommendations of the second sec THESPOID CIPIT VALUE - we bettion if

EFFECTS OF DVEREFTCHEE - we receive the second of the SOCTION VI -- REACTIVITY DATA STABILITY -- SIBBLE MALAROOUS DECORPOSITION PRODUCTS Sy live Garson Disarde. Carson Assaulde MALAROOUS FOLYMCRIATION -- Will Not Grewe

Section VII -- SPELL OR LEAR PROCEDURES

page 3

STEPS TO BESTARRE IN CASE MATERIAL IS RELEASED ON SPILLED
Remove all sources of Spullen. 'Ameliate and common with inest absorbmet.

MASTE DISPOSAL METHOD

'Asia Tron-this product may be horardous as satismed under the Resource Conservation and
Secorary Act (SCA) 40 CT9 261. Vants may be tested for ignitability ass satractability
electricans the applicable 2ft horardous waten numbers.

[actionster in appl /vsc (zellity. De not incinerate (inned container. Suppose of in
lectromate with Federal). State, and Local regulations regarding polivies.

Section VIII -- PROTECTION INFORMATION

PRECAUTIONS: TO 62 TAREN IN USE
The unity with adequate ventilation, here's breathing vapor and apray mist. Avail contact
with able and ways. Vash hands after using.
fromest against housework dust or lumes which may be gonerated by sanding or abrading of
the dried file.
UENTILATION
Lara schause preferable. Commetal echapses acceptable if the exposure to metorials in
Section if is maintained below applicable exposure limits. Salet to OSAE Standards 1918.3A,
1910. 101. 1910.102.
MESPITATORY PROTECTION
If personal asponent contact be controlled below applicable limits by restilation, wone
respiratory device approved by MIOSE/MSRA for protection against materials in Section II.

description on group a Prom 1 4

Industrial Enset. Non-Lead Calors PROTECTIVE GLOVES

Ver gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Vest refety speciacies with unperferned sideshicids.

Section IX -- PERCAUTIONS

DOL STORAGE CATEGORY ... I
PRECAUTIONS TO SE TAKEN IN MANDLING AND STORING
CONTENTS AT CONSTITUE. Ever stey from heat and open flame.
Contents are Combuttise. Ever stey from heat and open flame.
Constit NFA Conds. One sepressed benefing and Crewfile precedents.
Less container closes when not it uses. framelies only to Approved containers with complete
and appropriate labeling. De not rake internally. Less out at the reach of children.
This resting tentains moterials classified as neignance specify dates, for cameable
litanium districts, neither cardwante, atc. (see ADDIE TLY List. Preface and Appendix D).
Chick may be present at herseldout lavels omly during sanding or during of the stied film.

interstanni alware by deliberately summemorphism and inheling the contents can be bareful of fatel.

AUG 9 1933

HMIS

HEALTH	2
FLAMMABILITY	2
REACTIVITY	0

B54 Lead-Containing Colors on reverse.

COMPANY Name: SEQUOYALT NUCLEUR PLANT TENNESSE VALLEY AUTHORITY
Applicable APCB Certificate #: (GNST SIND BLAST & PANT SHOP W/TWO BOX ROOF L
Product Name: CONTROL RUT AU SURFACE ENAMEL
Product Manufacturer: THE SHERMA - WILLIAMS CO
Usage Data
Daily (gal/day): 2/260 = 0.008
Annual (gal/yr): $30/15 = 2$
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTACHED MSDS
As Received (Concentrated):
Density (lbs/gal):
solids % by Weight: 50 % by Volume: 40
voc % by Weight: 50 % by Volume: 60
Water % by Weight: % by Volume:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): % by Volume:
Solids % by Weight: % by Volume:
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: NA
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. Yes_No
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: MANAGE OF ENVIRON MENTIN DUALITY
11/03/89 RMP

Saries

86

(Approved by U.S. Department of Tabor 'Essentially Similar' to form OSHA-20) MATERIAL SAFETY DATA SHEET FOR COATINGS, RESINS AND RELATED MATERIALS

THE STREAMIN-WILLIAMS TOPONY (216) 566-2917 (3) CHR (216) 566-2917 (3) CHR (216) 566-2917 (4) CHR (216) 566-2917 (5) CHR (216) 566-2917 (
INFORMATION TELEPHCIE NO. E
Uttour Engage Colors Color
Utive Ensmel Trade Mark Strate Black That Black R8 R 9 Gloss Black Fist Black R8 R 9 Gloss Red Fist Black R8 R 10 Gloss Appliance White R8 R 12 Gloss Yellow R8 Y 12 Gloss Yellow R8 Y 14 Gloss Yellow
Grand Room Gloss Black KR N 8 Gloss Black Flat Black KR N 9 Gloss Red AND Gloss Red KR N 10 Gloss Appliance White RR N 12 Gloss Yellow RR Y 12 Gloss Yellow
KR N 8 Gloss Black KR N 9 Gloss Red Ing. KR W 10 Gloss Red Ing. KR W 12 Gloss Yellow KR Y 12 Gloss Yellow R Y 14 Gloss Yellow
es Black Iron Flat Brack RB N 9 Gloss Black Iron Flat Brack RB N 9 Gloss Red Ss Orange RB N 15 Mr. Iron Flat White ss Green RB N 15 Mr. Iron Flat White ss Green RB Y 12 Gloss Yellow ss Blue
ston flat Black R8 R 9 Gloss Red as Orange R8 H 10 Gloss Appliance White sa Orange R8 W 15 Wr. Iron flat White sa Green R8 Y 12 Gloss Yellow R8 X 14 Gloss Yellow as Blue
ss Orange R8 W 10 Gloss Appliance White ss Orange R8 W 15 Wr. Iron Flat White ss Green R8 Y 12 Gloss Yellow R8 Y 14 Gloss Yellow ss Blue
ss Orenge R8 W 15 Mr. Iron Flat White ss Green R8 Y 12 Gloss Yellow R8 Blue R8 Y 14 Gloss Yellow
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VAPOR DENSITY Heavier than Air	M	7.		Section TV FIRE AND EXPLOSION HAZARD DATA		
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Las	-		:			2

Combustible, Flash above 99 and below 200 F Carbon Dioxide, Dry Chemical, Fran-LINGUISHING MEDIA

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open ame. Closed containers may explace when exposed to extreme heat. Application to hot afaces requires special precautions. Buring emergency conditions overexposure to Symptoms may not be immediately apparent. composition products may cause a nealth hazard. IUSUAL FIRE AND EXPLOSION HAZARUS

Fill protective equipment including self-contained breathing apparatus should be used. its spray may be ineffective. If water is used, fog nozzles are preferable. Vater may be ud to cool closed containers to prevent pressure build-up and possible autolignition or PECIAL FIRE FIGHTING PROCF : RES tain medical attention.

plusion when exposed to extreme heat.

9451 JMH

Controls Rust All Surface Ensmel R8 Series

page 2

Section V -- BEALTH HASARD DATA

THRESHOLD LIMIT VALUE -- See Section II EFFECTS OF OVEREXPOSURE

Overexposure may In a confined area vapors in high concentration are anesthetic. result in lightheadedness and staggering gait.

Reports have associated repeated and projonged overexposure to solvents with Irritant to skin and upper respiratory system. permanent brain and nervous system damage. RONICE

Restore breathing. Keep varm and quiet. Vash affected area thoroughly with soap and water. If affected, remove from exposure. RGENCY AND FIRST ALD PROCEDURES If INHALED:

Remove contaminated clothing and launder before re-use. Flush eyes with large amounts of water for 15 minutes. Get medical attention. If in EYES: If on SKIN:

Section VI -- REACTIVITY DATA

DECOMPOSITION PRODUCTS Stable ARELITY

ARDOUS POLYMERIZATION -- Will Not Occur By fire: Carbon Bloxide, Carbon Honoxide

Section VII -- SPILL OR LEAK PROCEDURES

Remove all sources of ignition. Ventilate and remove with inert absorbent. IPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 201. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Dispose of in accordance with Federal, State, and Local regulations regarding pollution. Incinerate in approved facility. Do not incinerate closed container.

Section VIII -- PROTECTION INFORMATION

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact the skin and eyes. Wash hands after using. PRECAUTIONS TO BE TAKEN IN USE with skin and eyes.

Protect against dust which may be generated by sanding or abrading the dried film.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to 05HA Standards 1910.94, General exhaust acceptable if the exposure to materials 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear respiratory device approved by NIOSH/NSBA for protection against materials in Section II. PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

RS Serles

Section IX -- PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING DOE STURAGE CATECORY --

Contents are COMBUSIIBLE. Keep away from heat and open flame. Consult NFFA Code. Use approved Donding and Grounding procedutes.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Bo not take internally. Keep out of the reach of children. OTHER PRECAUTIONS

This costing contsins materials classified as nuisance particulates, for example titanium dioxide, calcium carbonate, etc. (see ACGH TLV List, Freface and Appendix D), which may be present at hazardous levels only during sanding or abrading of the dried film.

Intentional misusa by deliberately concentrating and inhaling the contents can be harmful or fatal.

418

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This Material Safety Data Sheet conforms to the Bazard Communication standard,

29 CFR 1910.1200(g)(4), for similar complex mixtures.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product way substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no wareantles, express or implied, and assume no liability in connection with any use of this information.

- 1/1
COMPANY Name: SEQUOYAL NUCLEAR PLANT TOWNS SEE VALLEY AUTHORITY
Applicable APUB Certificate #: (CONST SOND BLAST & PANT SHOP W/ TWO BOG ROOF E
Product Name: PROMAR - 400 LATEX SEMI-GLOSS FLAMEL
Product Manufacturer: THE SHERMAN - WILLIAMS CO
Usage Data
Daily (gal/day): 2/260 = 0.008
Annual (gal/yr): $30/15=2$
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTACHED MSDS
As Received (Concentrated):
Density (1bs/gal):
Solids % by Weight: 90 % by Volume: 30
voc % by Weight: % by Volume:
Water % by Weight: % by Volume:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): % by Volume:
Solids % by Weight: % by Volume:
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: NA
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the
best of my knowledge. Signature: () and shows with
Title: MANAGER OF ENVIRONMENTAL QUALITY 11/03/89

RMP

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FROMAR + +00 Later Sent-Gloss Enamel Section V -- SEALTH SALARO DATA STABILITY -- STABLE*

MALAGOUS SECONFOSITION PRODUCTS

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Use only with assessed entilation, avoid breathing vapor and spray also. Avoid conton with ania and eyes, fast hance after using.

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831-400 Series PROMAR® AGO Laren Sesi-Closs Enamel tection IZ -- PERCAUTIONS

DOL STORAGE CATEGORY — 18
PRECAUTIONS TO BE INSET IN SAMPLING AND STORING
PRECAUTIONS TO BE INSET IN SAMPLING AND STORING
Loss container closes whom set is use. Transfer only to approved containers with complete
and approved rate labeling. Do not take intermally. Lowy out of the rough of children.
OTHER PRECAUTIONS
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This conting contains materials claresties as outsames particulates. For example
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Ilization district, chicken appendix only obting sanding or spracing of the drive file.

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AUG 8 1988

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The seneral intermetion overlains or this product as corruntly formulated, and in based on the intermedition exclinities overlain the intermedition of intermedition of intermeditions of intermeditions of intermeditions of intermeditions of the overlaintially after the communities and hazards of the product. Since communities of use are overlaintied, and making of the product, and hazards of the communities of the communities

COMPANY Name: SEQUOYALT NUCLEUR PLANT TENNESSE VALLEY AUTHORY
Applicable APCB Certificate #: (CONST SOND BLOST & POINT SHOP W/ TWO BOG ROOF E.
Product Name: WHITE GLOSS GT/INT ENAME
Product Manufacturer: PPG INDUSTILIES, INC
Usage Data
Daily (gal/day): 2/260 = 0.008
Daily (gal/day): 2/260 = 0.008 Annual (gal/yr): 30/15 = 2
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTACHE MSDS
As Received (Concentrated):
Density (1bs/gal): 9.84
solids & by Weight: 64.2 & by Volume: 45.7
voc % by Weight: 35,8 % by Volume: 54,30
Water % by Weight: % by Volume:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): % by Volume:
Solids % by Weight: % by Volume:
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: NA
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: Multipullach Title: MANAGE OF ENVIRON MENTIN DUNLITY

11/03/89 RMP

MATERIAL SAFETY DATA SHEET

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SECTION I - PRODUCT INFORMATION
IMDUSTRIES INC. CODE/IDENTITY: 6-252
KAPPA DRIVE
SHURGH, FA 15238
OUSTRIAL HYDIENE US DOTI-PAINT, COMBUSTIBLE LIQUID
D PRODUCT 14FETY DATE OF PREPARATION: 7/14/87
                                                                                                                                                                                                                                                                                                                                                (0130860)
   MANUFACTURER'S NAME: PPG INDUSTRIES INC.
PRODUCT SAFETY LOC.: 260 KAPPA ORIVE
PITTSBURGH, PA 15238
    MSDS CONTACT: MANAGER, INDUSTRIAL HYGIENE
                                                                                                                                                                                                                                                                                                                                               HMC
                                                                                                                                                                                                                                                                                                                                                                                                   2160
                                                                                             AND PRODUCT
                                                                                           (412) 963-5822
(304) 843-1300
                                                                                                                                                                                              CUSTOMER PART #:
    EMERGENCY TELEPHONE:
                                                                                                                             SECTION II - INGREDIENTS
                                                                                                                                                                                                                                                                      EXPOSURE
                                                                                                                                                                                                                                                                                                                                             LIMITS
                                                                                                                                                                       APPROX.
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ALUMINUM SILICATE
                                                                                                                                                                                                     13463-67-7
64742-48-9
64742-46-7
ALUMINUM DIDXIDE #
HYDROTREATED HEAVY NAPHTHA
HYDROTREATED HIDDLE DISTILLATES
                                                                                                                                                                                                                                                                                                                       15.00Mg/M3
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MEDIUM ALIPHATIC SOLVENT NAPHINA
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  CARCINOGENIC ACCORDING TO CRITERIA ESTABLISHED BY: " * NIP " * LARC D * OSHA # * OTHER SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: 100 · 273 bg. < SOLUBILITY IN DATER: 0.1 % OLD STORM OF THE COLUMN OF THE COLUMN OF THE COLUMN OF THE CALL OF THE COLUMN OF THE CALL OF THE CAL
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SECTION IV - FIRE AND EXPLOSION HAZARD DATA EVAP RATE(BUCACH100) US-DOT CATEGORY: COMBUSTIBLE FLAMMABLE LIMITS: LEL 0.8 UEL U/1 FLASHPOINT: 1G6 DEG. F PMCC

EXTINGUISHING MISTAL

LISE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERE (CARBON DIOXIDE, DRY
CR. WICAL, OR UNIVERSAL AQUECUS FILM FORMING FOAM) DESIGNED TO EXTINGUISH NFPA CLASS II
COMBUSTIBLE LIQUID FIRES.

UNUSUAL FIRE AND CYPLOSION MAZAFOE:

CEEP COMENIANCES TIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, AND OPEN

FLAMES. CLOSED CONTAINERS MAY EXPLIDE WHEN EXPOSED TO EXTREME MEAT. DO NOT APPLY ON HOT

SUBFACES. ICXIC CASES MAY FOR WHEN PRODUCT IS CONTACTED BY FLAME OR HOT SUFFACES.

SPECIAL FIRE FIGHTING PROCEDURES:

WATER SPART MAY IS INSPECTIVE. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS TO

PREVENT PRESSURE ELID UP AND PUSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME

HEAT. IF MATER IS USED, FOR MOZZLES ARE PREFERABLE. FIRE-FIGHTERS SHOULD WEAR SELF CONTAINED SEEATHING AFFARATUS.

SECTION V - REACTIVITY DATA

STABILITY STABLE HAZARODIS POLYMERIZATION: NOT EXPECTED TO OCCUR
INCOMPATIBILITY (MATERIALS AND CONCENTIONS TO AVOID):
AVOID CONTACT WITH STRONG ALKALIES, STRONG MINERAL ACIDS, OR STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: MAY PRODUCE MAZARDONS DECOMPOSITION PRODUCTS WHEN HEATED. WELDING, BRAZING, OR FLAME-CUTTING ON SLEFACES COATED WITH THIS PRODUCT MAY PRODUCE FUNES INCLUDING:

Carbon Monoxide, SECTION VI - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL SPECASED OR SPILED:

PROVIDE MAXIMUM VENITLATION. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND SKIN AND

EYE PROTECTION SHOLD BE PERMITTED IN THE AREA. REMOVE ALL SOURCES OF IGNITION. TAKE UP

SPILED MATERIAL WITH SANDUST, VERMICULIVE, OR DIMER ASSURBENT MATERIAL AND PLACE INTO

CONTAINERS FOR DISFISAL.

WASTE DISPOSAL METHOD:

MASTE MATERIAL MUST BE DISPOSED OF TH ACCORDANCE WITH FEDERAL, STATE, AND LOCAL
SHVIRONHENTAL CONT. . REQUIATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF
THROUGH AN APPROVE: MASTE MANAGEMENT FACILITY.

SECTION VII - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE FROM:

HARMFUL OR FATAL IT LAALLOWED. EYE CONTACT:

CAUSES SYE TARITATION. SEIN CONTACT:

MAY CAUSE MODERATE SKIN SERITATION.

INHALATION: VAPOR AND SPRAY MIST MAY BE HARMFUL IF INHALED. CONTINUED ON PAGE 2

RECEIVED SON

JUL 31 1987

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persons.	FIRST OF	PROCEDU	DES						
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Call physic	ian imme	ediately							
						-			
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	STABLE	-	X	1				USE ONL	-
INCOMPATABILIT			None	<u> </u>		**	OR	Jet B	
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						RLEAKPE	ROCE	DURES	
STEPS TO BE TA	KEN IN CAS	E MATERI	AL IS REI	EASED OF	R SPI	LLED			
Wipe up wit	h rags.	Wash o	ff wit	h alkal	ine	detergen	t.		
WASTE DISPOSAL	METHOD	Dispose	of in	accord	anci	e with lo	cal,	state and federal	
****			regul:	ations.					
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	(m	FOTION	2/11/	COECIAI	20	OTECTIO	N INS	FORMATION	
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T LOCAL EXHAUST				SPECIAL					
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		-	ea					not required	
OTHER PROTECT	TVE EQUIP	ME N. I							
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PRECAUTIONS T	O BE TAKE								
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	e in coo	1 1	n1500						

PAGE (2) TT:sml 8-5-80 Form OSHA-20 Rev. May 72

Company Name: SEQUOYAH NUCCER	PLANT TEUNISSIE VALLEY AUTHORITY
Applicable APCB Certificate #: CONST	SUDDICT & BUT SIMP W/ TWO BOG ROOF !
Applicable APCB Certificate #: CONST	BAN OLDS : TANI SINI IT
Product Name: REM (VSTRUL	ENAMEZ, NON-LEND COLORS
Product Manufacturer: THE SHERV	VIN- WILLIAMS CO
Usage Data	
Daily (gal/day): 2/260	- 0.008
Annual (gal/yr):	15=2
Rule 25.43 & 25.44	- 1 4000
Analysis or Manufacturers Certific	ation Data*: SEE ATTACHED MSCO
As Received (Concentrated):	
Density (lbs/gal):	8.5
solids % by Weight: 25	* by Volume: 35
voc % by Weight: 75	\$ by Volume: 65
Water % by Weight:	* by Volume:
As Applied (Diluted): SOME AS	
Density (lbs/gal):	t by Volume:
Solids % by Weight:	% by Volume:
Voc % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data	
Chemical Composition: NA	
Density (lbs/gal):	
Mfr. Data Sheet or Certification i	s attached. Yes No
*For NSPS Sources Method 24 must be u	ised.
	nature: MANAGE OF ENVIRON MENTAL QUALITY
11/03/89	

11/03/89 RMP

HMC 556

						PSS Series REM LUSTRAL* Passel, Mon. Lead Colors
BAPRETAL BAPRTY DATA		A B R B T HATERIALS	*			UNISUAL TIPE AND EXPLOSION DATABASE
and by U.S. Department of Labor Passaciasily		failer to	Shailar' to form 0538-20)	102		Keep containers tightly closed. Isolate from heat, electrical equipment, epside, and op-
PANE	(216) S	TELEPHONE HO	18 HO.			surfaces requires special precautions. Buring sastgancy condition contespetus to decemberation products any cause a health harard. Symptoms as; no, he issectately arrainnously arrainnously and assectately arrainnously and assectately arrainnously.
22.00 000000000000000000000000000000000						SPECIAL FIRE FIGHTING PROCEPURES
	(216)	04 TELEPHONE NO. 566-2962	10NE 110.			This protective equipment including self-routained breathing apparatual to constitute anything apparatual protective. The self-routained by the self-routained and the self-routained a
Rection 1 PRODUCT IDENTIFICATION	BRNTIF	CATION	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	used to cool closed containers to person present the explosion when exposed to extreme hear.
· · · · · · · · · · · · · · · · · · ·	- Trade Mark	Rack	1	1		Section V DEALTH BARARD DATA
Enskel, Mon-Lead Colors						THE RESERVE OF THE PROPERTY OF
The Colors		104	Tornories			MEDIVIDAKAN MEDIVI
+ht Gray	2 554	1 501	Pale Blue			ACUTE: In a condined area vapors in high concentration are ensethering. Oversephones -
sachine Tool Gray	1 5 5 E 1	10 8:1	Bright Blue			neuglit in limphibeadedneus and unapper som meet.
ASK 349 Gray	# 594	I Mar	Rarbon			greitant to skin and upper respiratory spaten.
Class wisch	100	II Mic	Rich Srown			CHRONIC: Reports have suscelated repeated and profunded overesponders to solvents with
	465	Ter.	Vermillon			they are an or and a second control of the second desirable.
ATT TOO TEST STACK		Tar	Tartar Red Dark	DRER		EMERGENCY AND THAT AND THAT COURSES
A	E E 554	0 0 0 0	Gloss white	****		
		200	Custom white			
Light Gream		t Tin	Tinting White	1116		If in ETES: Flush eyes with large assumts of water for 15 sincipa.
			**			Get medical attention.
Torest Green	4 6 5 4		Lemon Tellow	* 10 0		RESTREE STREET S
Light Blue	4 594					
Sark Slue	Tinted	Colors	!			STABILITY Stable RALKARDOUS DECOMPOSITION PRODUCTS By first Carbon Bloadde, Carbon Monoride HAZARDOUS POLYMERIZATION Will Not Occur
Nertion II BANARDOUS INCREDIENTS	THOM I ST	REDIERTE				Section Vit - Spill OR LRAR PROCEDURE
	PENCTON .	11.5- 500	TL2 HL/H1	in.	***	Charles and Charle
8 F. Naphtha.	0.5	300.	1350.	0.9	12.0	Peace all consees of ignition. Ventilate and rescue with insit absorbent.
al Spirite.	35-55	3119.	581.	1.0	2.0	HASTE DISPOSAL METHOD
al "p-1. 119 140. Flash.	6-0	200.	1370.	6.0	0.5	Incinerate in approved facility. In not incinerate closed container. Dispose of in
	0.0	25.	120.	1.1	9.0	accordance with federal, State, and Incal regulations regarding pollution.

incinerate in approved facility. In not incinerate closed container. Dispute of in accordance with Federal, State, and Local regulations regarding politities. Section Viti .. PROTRCTION INFORMATION 0.0 0.03 700. 0.0.0.0

VAFOR DENSITY ... Heavier than Air.

1 VOLATILE VOLUME 58-65

IR .. Slover than Ether

Section III .- PHYSICAL DATA

the Ph)

-crhylethonypr

7.4-9.6

Continued on page 2

Section IV -- FIRE AND EXPLOSION NAZARD DATA

TAXALFICATION FLASH FORMY 102 F PHCC HARMAN AND F PHCC

, Dry Chemical, Foss

PRECAUTIONS TO BE TREEM IN USE
Use only with adequate ventilation. Avoid hearthing vapor and spray wist. Avoid conta Use only with adequate ventilation. Avoid hearthing vapor and spray wist. Avoid conta Vitt stell and ayes. Wash the first way be generated by nauding or shrading the deted filts VERTILATION
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company Name: SEQUOYAH NUCLOR PLA	NT TAMESOT VALLEY AUTHORY
Applicable APCB Certificate #: (CONST SON)	DOWN & DUT SUMD W/ TWO BOX ROW E
	어 있다. 이 이 없는 한 경기를 보고 있는데 이 아니라 보고 있는데 아니라 그는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하
Product Name: QUCK TORY	
Product Manufacturer: PG IND	NSTRIES INC
Usage Data	
Daily (gal/day): 2/260 =	
Annual (gal/yr): 30/15=	2
Rule 25.43 & 25.44	
Analysis or Manufacturers Certificati	on Data*: SEE ATTAICHED MSDS
As Received (Concentrated):	
Density (lbs/gal): 9.15	
Solids % by Weight: 62.3	% by Volume: 46.9
voc % by Weight:37.7	
Water % by Weight:	% by Volume:
As Applied (Diluted): SAME AS	ABOVE
Density (lbs/gal):	% by Volume:
Solids % by Weight:	% by Volume:
Voc % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data	
Chemical Composition: NA	
Density (lbs/gal):	
Mfr. Data Sheet or Certification is a	ttached. Yes No
*For NSPS Sources Method 24 must be used	
This is to certify that this information best of my knowledge. Signatu	is true and complete to the re: Mullimillach le: MANAGE OF ENVIONMENTAL DUNITY
11/03/89	-

RMP

MATERIAL SAFETY DATA SHEET HMC 2657 COATINGS AND RESINS GROUP

(111885E)

SECTION I - PRODUCT INFORMATION

MANUFACTURER'S NAME : PPG INDUSTRIES INC.

PRODUCT SAFETY LOC .: 260 KAPPA DRIVE PITTSBURGH, PA-15238 MSDS CONTACT: MANAGER, INDUSTRIAL HYGIENE AND PRODUCT SAFETY

(304) 843-1300 d EMERGENCY TELEPHONE:

CODE/IDENTITY TRADE NAME: TOURS ENAMED CHEMICAL FAMILY ALCYD"

DOT CLS : PAINT, COMBUSTIBLE LIQUID

DATE OF PREPARATION: \$4701786

SECTION II - INGREDIENTS

INGRED LENTS MALUMINUM SILICATE! WELTAN I UM DEOX BOE THE PODORUES STMENERALTIS PINETS HIGH BOILING ALIPHATIC SOLVENTINGS

EXPOSURE LIMIT APPROX. PPG IPEL % WT. CAS NO. ACGIH TLV OSHA PEL NOT EST. NOT EST. NOT EST. 1335-30-4 15.00Mg/M3 10.00Mg/M3 10.00Mg/M3 13463-67-7 NOT EST. HOT EST. NOT EST. 8032-32-4 20 NOT EST. NOT EST. NOT EST. NOT EST. 5 NOT EST. HOT EST. NOT EST. 8032-32-4 15 NOT EST. NOT EST. 35 PROPRIETARY NOT EST.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE : 136 - 273 DEG.C

VAPOR PRESSURE: 0.5 mmHg

VAPOR DENSITY : HEAVIER THAN AIR

VOL/VOLUME : 53.10 EVAP RATE(BUGAC=100): SOLUBILITY IN WATER: 0.0 %

WT/GAL (LBS): 9.15

pH: U/I % SOLID BY WEIGHT: 62.3 SAIN

RECEIVED

MAY S 1988

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY: COMBUSTIBLE FLASHPOINT: 104 DEG F PMCC

FLAMMABLE LIMITS: LEL

0.8 UEL

U/I

EXTINGUISHING MEDIA:

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR UNIVERSAL AQUEOUS FILM FORMING FOAM) DESIGNED TO EXTINGUISH NFPA CLASS IIIB COMBUSTIBLE LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

KEEP CONTAINERS TIGHTEVICLOSED ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS AND PER FEAMES CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO POTREME HEAR DO NOT APPO CON TOTAL SURFACES. TOXIC GASES MAY FORM WHEN PRODUCT IS CONTACTED BY FLAME OR HOT SURFACES.

SPECIAL FIRE FIGHTING PROCEDURES:

WATER SPRAY MAY BE INEFFECTIVE. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. FIRE-FIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS.

SECTION V - REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: NOT EXPECTED TO OCCUR

INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):

HAZARDOUS DECOMPOSITION PRODUCTS:

MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS WHEN HEATED, WELDING, BRAZING, OR FLAME-CUTTING ON SURFACES COATED WITH THIS PRODUCT MAY PRODUCE FUMES INCLUDING: Carbon Monoxide.

SECTION VI - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Continued on Back of Page

ENVIRONMENTAL CONTROL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILTY.

SECTION VII - HEALTH HAZARD DATA

FFFECTS OF OVEREXPOSURE FROM:

INGESTION:

HARMFUL OR FATAL IF SWALLOWED.

EYE CONTACT:

CAUSES EYE IRRITATION.

SKIN CONTACT:

MAY CAUSE MODERATE SKIN IRRITATION.

INHALATION:

VAPOR AND SPRAY MIST MAY BE HARMFUL IF INHALED. REPEATED EXPOSURE TO HIGH VAPOR CONCENTRATIONS MAY GAUSE IRBITATION OF THE RESPIRATORY INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL.

CHRONIC OVEREXPOSURE:

AVOID LONG-TERM AND REPEATED CONTACT.

SIGNS AND SYMPTONS OF OVEREXPOSURE:

EYE WATERING, HEADACHES, NAUSEA, DIZZINESS, AND LOSS OF COORDINATION ARE INDICATIONS THAT SOLVENT LEVELS ARE TOO HIGH.

REDNESS, ITCHING, BURNING SENSATIONS AND VISUAL DISTURBANCES MAY BE INDICATIONS THAT EXCESSIVE EYE CONTACT HAS OCCURED.

DRYNESS, ITCHING, CRACKING, BURNING, REDNESS, AND SWELLING ARE CONDITIONS ASSOCIATED WITH EXCESSIVE SKIN CONTACT.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: MOT APPLICABLE

SECTION VIII - FIRST AID PROCEDURES

INGESTION

IF SWALLOWED, DO NOT INDUCE VOMITING.

IN CASE OF EYE CONTACT, FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

SKIN_CONTACT:

IN CASE OF SKIN CONTACT, REMOVE PROMPTLY BY WIPING, FOLLOWED BY WATERLESS HAND CLEANED AND SOAP AND WATER

INHALATION:

IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST. REMOVE TO FRESHAIR. APPLY ARTIFICIAL RESPIRATION AND OTHER SUPPORTIVE MEASURES AS REQUIRED."

IF ANY OF THE FOLLOWING OCCUR DURING OR FOLLOWING USE OF THIS PRODUCT, CONTACT A POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN IMMEDIATELY; HAVE MATERIAL SAFETY DATA SHEET INFORMATION AVAILABLE. *INGESTION, * EXCESSIVE EXPOSURE TO A CORROSIVE MATERIAL. * PERSISTENT SKIN/EYE IRRITATION OR BREATHING DIFFICULTIES.

SECTION IX - PROTECTION INFORMATION

PERSONAL PROTECTIVE EQUIPMENT FOR:

EYE PROTECTION:

WEAR CHEMICAL-TYPE SPLASH GOGGLES OR FULL FACE SHIELD.

SKIN PROTECTION:

WEAR PROTECTIVE CLOTHING, INCLUDING IMPERMEABLE APRON AND GLOVES CONSTRUCTED OF: NITRILE RUBBER, NEOPRENE RUBBER OR POLYVINYL'ALCOHOL"

RESPIRATORY PROTECTION:

Continued on Page 2

Continuation of Manufacturer's Code - 54-110 DATE OF FREP: 4/01/86

OVEREXPOSURE TO VAPORS MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS VAPOR EXHAUST OR FRESH AIR ENTRY. MIOSH/MSHA APPROVED (TC-23C-) PAINT SPRAY OR AIR SUPPLIED (TC-19C-) RESPIRATORS MAY ALSO REDUCE EXPOSURE. IN ALL CASES, READ RESPIRATOR MANUFACTURER'S INSTRUCTIONS AND LITERATURE CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE AND HOW IT IS TO BE PROPERLY FITTED.

OTHER EQUIPMENT CLEAN OR DISCARD CONTAMINATED CLOTHING AND SHOES.

VENTILATION REQUIREMENTS: PROVIDE GENERAL DILUTION OR COCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS, THE LEL IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS: PO NOT STORE ABOVE 120 DEGREES FINSTORE LARGE QUANTITIES, IN BUILDINGS DESIGNED AND PROTECTED FOR STORAGE OF NEPA CLASS IIIB COMBUSTIBLE LIQUIDS.

OTHER PRECAUTIO.13:

IF THIS MATERIAL IS PART OF A MULTIPLE COMPONENT COATING SYSTEM, READ THE MATERIAL SAFETY DATA SHEET(S) FOR THE OTHER COMPONENT OR COMPONENTS BEFORE BLENDING AS THE RESULTING

MIXTURE MAY HAVE THE HAZARDS OF ALL OF ITS PARTS. CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREE FALL OF LIQUIDS IN EXCESS OF A FEW INCHES.

ALL CHEMICAL SUBSTANCES IN THIS PRODUCT COMPLY WITH ALL APPLICABLE RULES OR ORDERS UNDER THE ENVIRONMENTAL PROTECTION AGENCY'S TOXIC SUBSTANCE CONTROL ACT.

THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) NOT EST. * NOT ESTABLISHED N/A * NOT APPLICABLE U/I = UNKNOWN INFORMATION

COMPANY Name: SEQUOYAH NUCLOR PLA	NT TENNESSEE VALLEY AUTHORY
Applicable APCB Certificate #: (CONST SOLL	BLAST & PAINT SHOP W/TWO BUG KOOF E
Product Name: BRILLIANT RED	
Product Manufacturer: PPG TWOUS	772165
Usage Data	
Daily (gal/day): 2/260	= 0.008
Annual (gal/yr):	- 2
Rule 25.43 & 25.44	
Analysis or Manufacturers Certificati	on Data*: SEE ATTACHE MSDS
As Received (Concentrated):	
Density (lbs/gal): 8.2	-5
1 ids % by Weight: 61.9	% by Volume: 51.4
t by Weight: 38.1	% by Volume: 48.60
Water % by Weight:	% by Volume: O
As Applied (Diluted): SAME AS	ABOVE
Density (lbs/gal):	
Solids % by Weight:	% by Volume:
Voc % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data	
Chemical Composition:	
Density (lbs/gal):	
Mfr. Data Sheet or Certification is a	ttached. Yes No
*For NSPS Sources Method 24 must be used	1.
Tit	is true and complete to the are: Mushimultah le: MANAGE OF ENVIRONMENTAL DURITY
11/03/89	

11/03/89 RMP



MATERIAL SAFETY DATA SHEET COATINGS AND RESINS GROUP

SECTION I - PRODUCT INFORMATION

MANUFACTURER'S NAME: PPG INDUSTRIES INC. CODE/IDENTITY : 54-306)

(1115840)

PRODUCT SAFETY LOC .: 260 KAPPA DRIVE

PITTSBURGH, PA 15238

CHEMICAL FAMILY: ALKYD

DATE OF PREPARATION: 3/06/86

TRADE NAME: BRILLIANT RED GLOSS ENAMEL !

MSDS CONTACT: MANAGER, INDUSTRIAL HYGIENE

AND PRODUCT SAFETY

DOT CLS : PAINT, COMBUSTIBLE LIQUID

(412), 963-5822,

EMERGENCY TELEPHONE:

7(304) 843-1300

SECTION II - INGREDIENTS

	APPROX.		EXP	OSURELI	MITS	
INGREDIENTS	% WT	. CAS NO.	ACOIH TLV	OSHA PEL	PPG IPEL	
ALUMINUM SILICATE	10	1335-36-4	N/A	N/A	N/A	
DOORLESS MINERAL SPIRITS	20	8032-32-4	M/A	N/A	N/A	
PROPYLENE CARBONATE	<1	108-32-7	N/A	N/A	N/A	
METHYL ETHYL KETOXIME	<1	90-29-7	N/A	N/A	N/A	
MINERAL SPIRITS	2.0	64742-86-7	N/A	K/A	N/A	
ETHYL BENZENE	<1	100-41-4	160.00PPM	166.66PPM	166.66PPM	
XYLENE	<1	1350-20-7	160.66PPM	100.00F M	100.00PPM	
FILM FORMERS, RESINS, AND ADDITIVES	5.6	PROPRIETARY	NOT EST.	NOT EST.	NOT ETT.	

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOT' ING RANGE : 100 - 242 DEG.C

VAPOR PRESSURE: 2.0 mmHg

VAPOR DENSITY : HEAVIER THAN AIR

% VOL/VOLUME : 48.60

EVAP RATE(BUOAC=100):

SOLUBILITY IN WATER: 0.1 %

WT/GAL (LBS): 8.25

PH: N/A

SOLID BY WEIGHT: 61.9

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGURY: COMBUSTIBLE

FLASHPOINT: 101 DEG. F PMCC

FLAMMABLE LIMITS: LEL 40.9

EXTINGUISHING MEDIA:

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR UNIVERSAL AQUEOUS FILM FORMING FOAM) DESIGNED TO EXTINGUISH NFPA CLASS IIIB COMBUSTIBLE LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

WEEP CONTAINERS TIGHTLY CLOSED, ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT SPARKS, AND OPEN SEA FLAMES CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT DO NOT APPLY ON HOT SURFACES. TOXIC GASES MAY FORM WHEN PRODUCT IS CONTACTED BY FLAME OF HOT SURFACES.

SPECIAL FIRE FIGHTING PROCEDURES:

WATER SPRAY MAY BE INEFFECTIVE. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT, IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. FIRE-FIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS.

SECTION V - REACTIVITY DATA

HAZARDOUS POLYMERIZATION: NOT EXPECTED TO OCCUR STABILITY: STABLE INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):..

AVOID CONTACT WITH STRONG ALKALIES, STRONG MINERAL ACIDS, OR STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:

MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS WHEN HEATED, WELDING, BRAZING, OR FLAME-CITTING ON SURFACES COATED WITH THIS PRODUCT MAY PRODUCE FUMES INCLUDING: Carbon Monoxide.

SECTION VI - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Continued on Back of Page

Continuation of Manufacturer's Code - 54-306 DATE OF PREP: 3/06/86

PROVIDE MAXIMUM VENT ATION. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND SKIN AND EYE PROTECTION SHOULL SERMITTED IN THE AREA. REMOVE ALL SOURCES OF IGNITION. TAKE UP SPILLED MATERIAL WITH SAWDUST, VERMICULITE, OR OTHER ABSORBENT MATERIAL AND PLACE INTO CONTAINERS FOR DISPOSAL.

WASTE DISPOSAL METHOD:

WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILITY.

SECTION VII - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE FROM:

INGESTION:

DRIED FILM OF THIS PAINT MA . SE HARMFUL IF FATEN OR CHEWED.

EYE CONTACT:

CAUSES SEVERE EYE PRITATION.

SKIN CONTACT:

MAY CAUSE MODERATE SKIN IRRITATION.

MAY BE ABSORBED THROUGH THE SKIN.

PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.

INHALATION:

VAPOR AND SPRAY MIST MAY BE HARMFUL IF INHALED.

MAY CAUSE LUNG IRRITATION AND ALLERGIC RESPIRATORY REACTION.

REPEATED EXPOSURE TO HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION OF THE RESPIRATORY

SYSTEM AND PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE.

INTENTIONAL IN USE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL.

REPEATED EXPOSURE:

AVOID LONG-TERM AND REPEATED CONTACT.

SIGNS AND SYMPTONS OF OVEREXPOSURE:

EYE WATERING, HEADACHES, NAUSEA, DIZZINESS, AND LOSS OF COORDINATION ARE INDICATIONS THAT

REDNESS, ITCHING, BURNING SENSATIONS AND VISUAL DISTURBAL DES MAY BE INDICATIONS THAT EXCESS "& EYE CONTACT HAS OCCURED."

DRYNESS, TCHING, CRACKING, BURNING, REDNESS, AND SWELLING ARE CONDITIONS ASSOCIATED WITH THE EXCESSIVE SKIN CONTACT.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NOT APPLICABLE

SECTION VIII - FIRST AID PROCEDURES

INGESTION:

IF SWALLOWED, DO NOT INDUCE VOMITING.

EYE CONTACT:

IN CASE OF EYE CONTACT, FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

SKIN CONTACT:

IN CASE OF SKIN CONTACT, REMOVE PROMPTLY BY WIPING, FOLLOWED BY WATERLESS HAND CLEANER AND SOAP AND WATER.

INHALATION:

IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR. APPLY ARTIFICIAL RESPIRATION AND OTHER SUPPORTIVE MEASURES AS REQUIRED.

OTHER:

IF ANY OF THE FOLLOWING OCCUR DURING OR FOLLOWING USE OF THIS PRODUCT: CONTACTA POISON AND CONTROL CENTER, EMERGENCY ROOM JR PHYSICIAN IMMEDIATELY; HAVE MATERIAL SAFETY DATA SHEET INFORMATION AVAILABLE. "INGESTION," EXCESSIVE EXPOSURE TO A CORROSIVE MATERIAL.

* PERSISTENT SKIN/EYE IRRITATION OR BREATHING DIFFICULTIES.

Continued on Page 2

Continuation of Manufacturer's Code - 54-306

DATE OF PREP: 3/06/86

SECTION IX - PROTECTION INFORMATION

PERSONAL PROTECTIVE EQUIPMENT FOR:

EYL PROTECTION:

WEAR CHEMICAL-TYPE SPLASH GOGGLES OR FULL FACE SHIELD.

SKIN PROTECTION:

WEAR PROTECTIVE CLOTHING, INCLUDING IMPERMEABLE APRON AND GLOVES CONSTRUCTED OF:

RESPIRATORY PROTECTION:

OVEREXPOSURE TO VAPORS MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS. VAPOR EXHAUST OR FRESH AIR ENTRY. NIOSH/MSHA APPROVED (TC-23C-) PAINT SPRAY OR AIR SUPPLIED (TC-19C-) RESPIRATORS MAY ALSO REDUCE EXPOSURE. IN ALL CASES, READ RESPIRATOR MANUFACTURER'S INSTRUCTIONS AND LITERATURE CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE AND HOW IT IS TO BE PROPERLY FITTED.

OTHER EQUIPMENT:

CLEAN OR DISCARD CONTAMINATED CLOTHING AND SHOES.

VENTILATION REQUIREMENTS:

PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS. THE LEL IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

DO NOT STORE ABOVE 120 DEGREES F. STORE LARGE QUANTITIES IN BUILDINGS DESIGNED AND PROTECTED FOR STORAGE OF NEPA CLASS IIIB COMBUSTIBLE LIQUIDS.

OTHER PRECAUTIONS:

IF THIS MATERIAL IS PART OF A MULTIPLE COMPONENT COATING SYSTEM, READ THE MATERIAL SAFETY DATA SHEET(S) FOR THE OTHER COMPONENT OR COMPONENTS BEFORE BLENDING AS THE RESULTING MIXTURE MAY HAVE THE HAZARDS OF ALL OF ITS PARTS.

CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREE FALL OF LIQUIDS IN EXCESS OF A FEW INCHES.

ALL CHEMICAL SUBSTANCES IN THIS PRODUCT COMPLY WITH ALL APPLICABLE RULES OR ORDERS UNDER THE ENVIRONMENTAL PROTECTION AGENCY'S TOXIC SUBSTANCE CONTROL ACT.

THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

- 11 17 - 1/ 1-
COMPANY NAME: SERVOYAH NUCLEUR PLANT TENNESSE VALLEY AUTHORITY
Applicable APCB Certificate #: (CONST SAW BLAST & PANT SINDEW/ TWO BUG ROOF
Product Name: Q-D GNAMEZ, SAFETY YOLLOW
Product Manufacturer: PPG INDUSTRIES INC
Usage Data
Daily (gal/day): 2/260 = 0.008
Annual (gal/yr): 30/15 = 2
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTACHED MSDS
As Received (Concentrated):
Density (1bs/gal): 8.79
Solids % by Weight: 61.8 % by Volume: 48.2
voc % by Weight: 38.2 % by Volume: 51.80
Water % by Weight:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): % by Volume:
Solids % by Weight: % by Volume:
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: NA
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: The structure of the signature of the s
Title: MANAGE OF ENVIRON MENTING QUALITY 11/03/89
11/00/00

RMP

MATERIAL SAFETY DATA SHEET COATINGS AND RESINS GROUP

SECTION I - PRODUCT INFORMATION
INDUSTRIES INC. CODE/IDENTITY : 54-308 (0129865) MANUFACTURER'S NAME: PPG INDUSTRIES INC. TRADE NAME: Q-D ENAMEL, SAFETY YELLOW PRODUCT SAFETY LOC .: 260 KAPPA DRIVE 12.2-CHEMICAL FAMILY: ALKYD PITTSBURGH, PA 15238 DOT CLS:PAINT, COMBUSTIBLE LIQUID DATE OF PREPARATION: 9/11/86 MSDS CONTACT: MANAGER, INDUSTRIAL HYGIENE AND PRODUCT SAFETY CUSTOMER PART #: (412) 963-5822 (304) 843-1300 EMERGENCY TELEPHONE: SECTION II - INGREDIENTS

RECEIVED EXPOSURE LIMITS APPROX. ACGIN TLY PPG IPEL SON OSHA PEL INGREDIENTS 13463-67-7 10.00Mg/M3 15.00Mg/M3 TITALIUM DIOXIDE SEP 15 1986 NOT EST. NOT EST. 10 1335-30-4 NOT EST. NOT EST. 15 64742-48-9 NOT EST. HYDROTREATED HEAVY NAPHTHA NOT EST. 20 64742-88-7 NOT EST. MEDIUM ALIPHATIC SOLVENT NAPHTHA NOT EST. NOT EST. FILM FORMERS, RESINS, AND ADDITIVES 40 PROPRIETARY NOT EST.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: 100 - 242 DEG.C SOLUBILITY IN MATER: 0.1 %
VAPOR PRESSURE: 0.5 mmHg W1/Gal (LBS): 8.79

VAPOR DERSITY : HEATTER THAN AIR X VOL/VOLUME : 51.80
EVAP RATE(BLACK100): 11

pH: U/I % SOLID BY WEIGHT: 61.5 EVAP RATE (BLEJAC# 100):

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT PATEGORY: COMBUSTIBLE FLASHPOINT: 103 PEG. F PMCC

- no y 1

FLAMMABLE LIMITS: LEL 0.8 UEL

EXTINGUISHING MEDIA: USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS 8 EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL, OR UNIVERSAL AQUEOUS FILM FORMING FOAM) DESIGNED TO EXTINGUISH NFPA CLASS !! COMBUSTIBLE LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, AND OPEN
FLAMES. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY ON HOY TOXIC GASES MAY FORM WHEN PRODUCT IS CONTACTED BY FLAME OR HOT SURFACES. SUBSTACES.

SPECIAL FIRE FIGHTING PROCEDURES: WATER SPRAY MAY BE INEFFECTIVE. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME MEAT. IF WATER IS USED, FOR WOZZLES ARE PREFERABLE. FIRE-FIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS.
SECTION V - REACTIVITY DATA

STABILITY: STABLE HAZ ROOUS POLYMERIZATION: NOT EXPECTED TO OCCUR
INCOMPATIBILITY (MATERIALS AND CONDITIONS TO A '1D):
AVOID CONTACT WITH STRONG ALKALIES, STRONG MINERAL ACIDS, OR STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:

MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS WHEN HEATED. WELDING, BRAZING, OR FLAME-CUTTING ON SURFACES COATED WITH THIS PRODUCT MAY PRODUCE FUMES INCLUDING:

Carbon Monoxide SECTION VI - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: PROVIDE MAXIMUM VENTILATION. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND SKIN AND EYE PROTECTION SHOULD BE PERMITTED IN THE AREA. REMOVE ALL SOURCES OF IGNITION. TAKE UP SPILLED MATERIAL WITH SAWDUST, VERMICULITE, OR OTHER ABSORBENT MATERIAL AND PLACE INTO CONTAINERS 'OR DISPOSAL.

WASTE DISPOSAL METHOD:
WASTE MATERIAL FOR BE LISPOSED OF IN ACCORDANCE WITH FEDERAL, ST. TE, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS. EMPTY COMTAINERS SHOULD BE RE YOLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILTY.

SECTION VII - HEALTH HAZARD INTA

SEFFECTS OF OVEREXPOSURE ROM:

MISESTION:

HATKSUI OR FATAL IF SWALLOWED.

EYE CONTACT:

CAUSE EYE IRRITATION.

SKIN CONTACT:

MAY CAUSE MODERATE SKIN IRRITATION.

INHALATION:

VAPOR AND SPRAY MIST MAY BE HARMFUL IF INHALED. REPEATED EXPOSURE TO HIGH VAP & CONCENTRATIONS MAY CAUSE IRRITATION OF THE RESPIRATORY CONTINUED ON PAGE 2

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OR FATAL.

SYSTEM AND PERMANENT BRAIN . NO NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND IMMALING THE CONTENTS CAM BE HARMFUL

CHRONIC OVEREXPOSURE:

AVOID LONG-TERM AND REPEATED CONTACT.

SIGNS AND SYMPTONS OF OVEREXPOSURE:

EYE WATERING, HEADACHES, NAUSEA, DIZZINESS, AND LOSS OF COORDINATION ARE INDICATIONS THAT SOLVENT LEVELS ARE TOO HO AN REDNESS, ITCHING, BURNING SENSATIONS AND VISUA: DISTURBANCES MAY BE INDICATIONS THAT EXCESS VE EYE CONTACT HAS OCCURED. DRYMESS, ITCHING, CRACKING, SURNING, REDWESS, AND SWELLING ARE COMDITIONS ASSOCIATED WITH

EXCESSIVE TKIN CONTACY.

MEDICAL COMDITIONS AGGRAVATED BY EXPOSIBE: NOT ASPLICABLE SECTION VIII - FIRST AID PROCEDURES

INGESTION:

IF SWALLOWED, DO NOT INDUCE VOMITING.

EYE CONTACT:

IN CASE OF EYE CONTACT, FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 HINUTES.

SKIN CONTACT:

IN CASE OF SKIN CONTACT, REMOVE PROMPTLY BY WIPING, FOLLOWED BY WATERLESS HAND CLEAMER AND

SOAP AND WATER.

INHALATION:

IF AFFECTED BY INHALATION OF VAPOR OR SPRAY HIST, REMOVE TO FRESH AIR. APPLY ARTIFICIAL RESPIRATION AND OTHER SUPPORTIVE MEASURES AS REQUIRED.

OTHER:

IF ANY OF THE FOLLOWING OCCUR DURING OR COLLOWING USE OF THIS PRODUCT, CONTACT A POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN IMMEDIATELY; HAVE HATERIAL SAFETY DATA SKEET INFORMATION AVAILABLE. *INGESTION *EXCESSIVE EXPOSURE TO A CORROSIVE MATERIAL.

* PERSISTENT SKIN/EYE IRRITATION OR BREATHING DIFFICUL 'ES.

SECTION IX - PROTECTION INFORM ATION

PROTECTIVE EQUIPMENT FOR:

EYE PROTECTION:

WEAR CHEMICAL-TYPE SPLASH GOGGLES OR FULL FACE SHIELD.

SKIN PROTECTION:

WEAR PROTECTIVE CLOTHING, INCLUDING IMPERMEABLE APRON AND GLOVES CONSTRUCTED OF: MITRILE RUBBER, NEOPRENE RUBBER OR POLYVINYL ALCOHOL

RESPIRATORY PROTECTION:

OVEREXPOSURE TO VAPOR'S MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS, VAPOR EXHAUST OR PRESH AIR ENTRY. N'OSH/MSHA-APPROVED (TC-23C-) PAINT SPRAY OR AIR SUPPLIED (TC-19C-) RESPIRATORS MAY ALSO REDUCE EMPOSURE. IN ALL CASES, REAT RESPIRATOR MANUFACTURER'S INSTRUCTIONS AND LITERATURE CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE AND HOW IT IS TO BE PROPERLY FITTED.

OTHER EQUIPMENT:

CLEAN OR DISCARD CONTAMINATED CLOTHING AND SHOES.

VENTILATION REQUIREMENTS:

PROVIDE GENERAL DILUTION OR LOCAL EXHAUST ENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS, THE LEL IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SUFFACES COATED WITH THIS PRODUCT.

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE CRECAUTIONS: PROTECTED FOR STORAGE OF NFPA CLASS II COMBUSTIBLE LIQUIDS.

OTHER PRECAUTIONS:

IF THIS MATERIAL IS PART OF A MULTIPLE COMPONENT COATING GYSTEM, READ THE MATERIAL SAFETY DATA SHEET(S) FOR THE OTHER COMPONENT OR COMPONENT BEFORE BLENDING AS THE RESULTING MIXTURE FAY MANE THE HAZARDS OF ALL OF ITS PARTS. CONTAINERS SHOULD BE GROUNDED WEN POURING. AVOID FREE FALL OF LIQUIDS IN EXCESS OF A FEW INCHES ALL CHEMICAL SUBSTANCES IN THE PRODUCT COMPLY WITH ALL APPLICABLE RULES OR ORDERS UNDER THE ENVIRONMENTAL PROTECTION AGENCY'S TOXIC SUBSTANCE CONTROL ACT.

THIS MATERIAL SAFETY DATA SHEET MAS BEEN PREPARED IN ACCORDANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910, 1200)

U/I = UNKNOWN INFORMATION

N/A = NOT APPLICABLE

NOT EST. = NOT ESTABLISHED

PPIC 1120 (CUSTOMER NO.) LOCATION : 0809 8655/308////911

COMPANY Name: SERVOYAH NICLEAR PLANT TENNESSEE VALLEY AUTHORITY	
Applicable APCB Certificate #: (CONST SAM) BUSTING PAINT SHOP)	
Product Name: QUICK DRY ENAMEL SAFETY GREIN	
Product Manufacturer: PPG TNDUSTRIBS INC	
Usage Data	
Daily (gal/day): 2/260-0.008	
Annual (gal/yr): 30/15 = 2	
Rule 25.43 & 25.44	
Analysis or Manufacturers Certification Data*: SEE DITACHED M 51)5	
As Received (Concentrated):	
Density (lbs/gal): 8.3	
solids % by Weight: 57.19 % by Volume: 45.3	
voc % by Weight: 47.81 % by Volume: 54.70	
Water % by Weight: O % by Volume: O	
As Applied (Diluted): SAME AS ABOVE	
Density (lbs/gal): % by Volume:	
Solids % by Weight: % by Volume:	
VOC % by Weight: % by Volume:	
Water % by Weight: % by Volume:	
Thinner Data Chemical Composition: NA	
Density (lbs/gal):	
Mfr. Data Sheet or Certification is attached. Yes No	
*For NSPS Sources Method 24 must be used.	
This is to certify that this information is true and complete to the best of my knowledge. Signature: Manager of Environmental gard	17

11/03/89 RMP

MATERIAL SAFETY DATA SHEET COATINGS AND RESINS GROUP



SECTION I - PRODUCT INFORMATION CODE/IDENTITY : 54-311 TRADE NAME: QUICK DRY ENAMEL, SAFETY (0526870) MANUFACTURER'S NAME: PPG INDUSTRIESTINC REEK PRODUCT SAFETY LOC .: 260-KAPPA-DRIVE CHEMICAL FAMTEY ALKYDUNING PITTSBURGH, PA 15238 US-DOT:PAINT, COMBUSTIBLE LIQUED DATE OF PREPARATION: 3/28/88 MSDS CONTACT: MANAGER, INDUSTRIAL HYGIENE AND PRODUCT SAFETY HMC 2415 CUSTOMER PART #: (412), 963-5822 4 (304) 843-1300 EMERGENCY TELEPHONE: SECTION II - INGREDIENTS EXPOSURE LIMITS APPROX. OSHA PEL PPG IPEL WHT. CAS NO. ACGIH TLV 15.00Mg/M3 10.00Mg/M3 10.00Mg/M3 13463-67-7 TANTUM DIOXIDE #, 10.00Mg/M3 NOT EST. 10.00Mg/M3 1335-30-4 NOT EST. THE WEATTE SOLVEN FRAPHTHA! 64742-88-7 NOT EST. NOT EST. 30 NOT EST. NOT EST. FORMERS RESINS, AND ADDITIVES 64742-48-9 NOT EST. 10 NOT EST. NOT EST. NOT EST. PROPRIETARY 40 CORCINOGENIC ACCORDING TO CRITERIA ESTABLISHED BY: * = NTP ** = IARC @ = OSHA # * SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS # # OTHER SOLUBILITY IN WATER: 0.0 % BOILING RANGE : 136 - 242 DEG.C VAPOR PRESSURE: 1.7 mmHg WT/GAL (LBS): 8.30 (U.S.) pH: U/I VAPOR DENSITY : HEAVIER THAN AIR % SOLID BY WEIGHT: 57.19 % VOL/VOLUME : 54.70 SPECIFIC GRAVITY: 1.00 EVAP PATE(BUOAc=100): SECTION IV - FIRE AND EXPLOSION HAZARD DATA CATEGORY: COMBUSTIBLE FLASHPOINT: T12 DEG. F PMCC FLAMMABLE LIMITS: LEL 0.9 UEL EXTINGUISHING MEDIA: USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL, OR UNIVERSAL AQUEOUS FILM FORMING FOAM) DESIGNED TO EXTINGUISH NFPA CLASS II COMBUSTIBLE LIQUID FIRES. UNUSUAL FIRE AND EXPLOSION HAZARDS: KEEP CONTAINERS, LIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, AND OPE SURFACES TOTAL CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT DO NOT APPLY CONTAINED SURFACES TO TOTAL CONTAINERS MAY FORM WHEN PRODUCT IS CONTACTED BY FLAME OR HOT SURFACES SPECIAL FIRE FIGHTING PROCEDURES: WATER SPRAY MAY BE INEFFECTIVE. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. FIRE-FIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS.
SECTION V - REACTIVITY DATA STABILITY: STABLE HAZARDOUS POLYMERIZATION: NOT EXPECTED TO OCCUR
INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):

AVOID CONTACT WITH STRONG ALKALIES, STRONG MINERAL ACIDS, OR STRONG OXIDIZING AGENTS. HAZARDOUS DECOMPOSITION PRODUCTS: MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS WHEN HEATED. WELDING, BRAZING, OR FLAME-CUTTING ON SURFACES COATED WITH THIS PRODUCT MAY PRODUCE FUMES INCLUDING: Carbon Monoxide SECTION VI - SPILL OR LEAK PROCEDURES STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

**PROVIDE MAXIMUM VENTILATION. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND SETH AND WE'YE PROTECTION" SHOULD" BE" PERMITTED-IN-THE AREATHE REMOVEMALL SOURCES OF LIGHTLON CONTRACTOR SPILLED MATERIAL HITH: SAWDUST, VERMICULITE, OR OTHER ABSORBENT MATERIAL AND PLACE INTO CONTAINERS FOR DISPOSAL. WASTE DISPOSAL METHOD: WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILTY SECTION VII - HEALTH HAZARD DATA EFFECTS OF OVEREXPOSURE FROM: INGESTION: HARMFULL OR FATALLIA SWALLOWED EYE CONTACT: CAUSES EYE, IRRITATION SKIN CONTACT: MAY CAUSE MODERATE SKIN IRRITATION.

VAPOR AND SPRAY MIST MAY BE HARMFUL IF INHALED.

. VAPOR TRRITATES EYES, NOSE, AND THROAT.

INHALATION:

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PAGE 2 DATE OF PREP: 1/28/88

REPEATED EXPOSURE TO HIGH VAPOR CONCENTRATIONS HAY CAUSE IRRITATION OF THE RESPIRATOR SYSTEM AND PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE: INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFULL OR FATAL &

CHRONIC OVEREXPOSURE:

AVOID LONG-TERM AND REPEATED CONTACT.

THIS PRODUCT CONTAINS TATANIUM DIOXIDE. ANIMALS INHALING MASSIVE QUANTITIES OF TITANIUM DOOK DE DUST IN A LONG-TERM STUDY DEVELOPED LUNG TUMORS. STUDIES WITH HUMANS INVOLVED IN MANUFACTURE OF THIS PIGMENT INDICATE NO INCREASED RISK OF CANCER FROM EXPOSURE. POTENTIAL FOR INHALATION OF TITANIUM DIOXIDE DUSTS FROM COATINGS IS VERY LIMITED. SINCE OVEREXPOSURES ARE NOT EXPECTED, THERE IS NO SIGNIFICANT MAZARD FOR MAN.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

EYE WATERING, HEADACHES, MAUSEA, DIZZINESS, AND LOSS OF COORDINATION ARE INDICATIONS THAT SOLVENT LEVELS ARE TOO HIGH.

REDNESS, ITCHING, BURNING SENSATION AND VISUAL DISTURBANCES MAY INDICATE EXCESSIVE EYE CONTACT.

DRYMESS, ITCHING CRACKING, BURNING, REDNESS, AND SWELLING ARE CONDITIONS ASSOCIATED WITH EXCESSIVE SKIN CONTACT.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NOT APPLICABLE SECTION VIII - FIRST AID PROCEDURES

INGESTION:

IF SWALLOWED, DO NOT INDUCE VOMITING.

EYE CONTACT:

IN CASE OF EYE CONTACT, FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 150

SKIN CONTACT:

IN CASE OF SKIN CONTACT, REMOVE PROMPTLY BY WIPING, FOLLOWED BY WATERLESS HAND CLEANER AND SOAP AND WATER

INHALATION:

"F AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR. APPLY ARTIFICIAL RESPIRATION AND OTHER SUPPORTIVE MEASURES AS REQUIRED.

OTHER:

IF ANY OF THE FOLLOWING OCCUR DURING OR FOLLOWING USE OF THIS PRODUCT, CONTACT A POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN IMMEDIATELY; HAVE MATERIAL SAFETY DATA SHEET INFORMATION AVAILABLE. *INGESTION *EXCESSIVE EXPOSURE TO A CORROSIVE MATERIAL.

* PERSISTENT SKIN/EYE IRRITATION OR BREATHING DIFFICULTIES.

SECTION IX - PROTECTION INFORMATION

PERSONAL PROTECTIVE EQUIPMENT FOR:

EYE PROTECTION: W.

WEAR CHEMICAL TYPE SPLASH GOGGLES OR FULL FACE SHIELD.

SKIN PROTECTION:

WEAR PROTECTIVE CLOTHING, INCLUDING IMPERMEABLE, APRON AND GLOVES CONSTRUCTED OF

RESPIRATORY PROTECTION:

OVEREXPOSURE TO VAPORS MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS, VAPOR-EXHAUST OR FRESH AIR ENTRY. NIOSH/MSHA-APPROVED (TC-23C-) PAINT SPRAY OR AIR SUPPLIED (TC-19C-) RESPIRATORS MAY ALSO REDUCE EXPOSITE. READ RESPIRATOR MANUFACTURER'S INSTRUCTIONS AND LITERATURE CAREFULLY TO DETERMINE THE TYPE OF AIRBORNS CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE AND HOW IT & TO BE PROPERLY FITTED.

OTHER EQUIPMENT

VENTILATION REQUIREMENTS:

PROVIDE GENERAL SILUTION OF LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS, THE LEL IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

PROTECTED FOR STORAGE OF NFPA CLASS II COMBUSTIBLE LIQUIDS.

OTHER PRECAUTIONS:

IF THIS MATERIAL IS PART OF A MULTIPLE COMPONENT COATING SYSTEM, READ THE MATERIAL SAFETY DATA SHEET(S) FOR THE OTHER COMPONENT OR COMPONENTS BEFORE PLENDING AS THE RESULTING MIXTURE MAY HAVE THE HAZARDS OF ALL OF ITS PARTS. CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREE FALL OF LIQUIDS IN EXCESS OF A FEW

INCHES. ALL CHEMICAL SUBSTANCES IN THIS PRODUCT COMPLY WITH ALL APPLICABLE RULES OR ORDERS UNDER

THE ENVIRONMENTAL PROTECTION AGENCY'S TOXIC SUBSTANCES CONTROL ACT.

THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

U/I = UNKNOWN INFORMATION

N/A = NOT APPLICABLE

NOT EST. # NOT ESTABLISHED

CERT. LTR. = CHEMICAL D.K. ON TSCA INVENTORY; CAS NO. NOT AVAILABLE PPIC 5635 (CUSTOMER NO.) LOCATION : 0809 8854/311////128

COMPANY Name: SERVOYAH NICLEAR PLANT TOWNSSEE VALLEY AVERTY
Applicable APCB Certificate #: (CONST SAMD BUSTING & PAINT SIKE)
Product Name: PITTS - PTS QUICK DRY AVTVM N BROWN GLAMEZ
Product Manufacturer: PPG INDUSTRIES INC
Usage Data
Daily (gal/day): $2/260 = 0.008$
Annual (gal/yr): $30/15 = 7$
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTRUMED M SDS
As Received (Concentrated):
Density (lbs/gal): 8/9
Solids % by Weight: 54.8 % by Volume: 43.1
voc % by Weight: 45.2 % by Volume: 56,90
Water % by Weight: % by Volume:
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): % by Volume:
Solids % by Weight: % by Volume:
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: NA
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. Yes No
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature Outstandish Title: MANAGER OF ENVIRONMENTAL ORDER

11/03/89 RMP



MATERIAL SAFETY DATA SHEET COATINGS AND RESINS GROUP

HMC 2642

SECTION I - PRODUCT INFORMATION

MANUFACTURER'S NAME: PPG INDUSTRIES INC. PRODUCT SAFETY LOC .: 260 KARPA DRIVE TRADE NAME : TELE DUCK DRY AUTUMN BROWN ENAMED

CHEMICAL FAMILY: ALKYD

(100184E)

PITTSBURGH, PA 15238

MSDS CONTACT: MANAGER: INDUSTRIAL HYGIENE AND PRODUCT SAFETY

DOT CLS : PAINT, COMBUSTIBLE LIQUID.

CODE/IDENTITY : 54327

(412) 963-5822

DATE OF PREPARATION: 13/06/86

EMERGENCY TELEPHONE:

(304) 843-1300 ...

SECTION II - INGREDIENTS

	APPROX.	EXPO	SUREL	IMITS
INGREDIENTS	% WT. CAS NO.	ACCIH TLY	OSHA PEL	PPG IPEL
IRON OXIDE	5 1309-37-1	15.00Mg/M3	N/A	15.00Mg/M3
IRON OXIDE	5 NOT EST.	10.00Mg/M3	N/A	10.00Mg/M3
ALUMINUM SILICATE	5 1335-30-4	N/A	N/A	N/A
ODORLESS MINERAL SPIRITS	15 8032-32-4	N/A	N/A	N/A
PROPYLENE CARBONATE	<1 108-12-7	N/A	N/A	N/A
METHYL ETHYL KETOXIME	<1 96-29-7	N/A	H/A	M/A
KYLENE	<1 1330-20-7	154.50PPM	100.00 PPM	100.00PPM
MINERAL SPIRITS-AULE 66	30 0032-32-4	N/.	N/A	N/A
(1) 전투 10 전투 1	1 100-41-4	100.00 PPM	100.00PPM	100.00PPM
FILM FORMERS, RESINS, AND ADDITIVES	40 PROPRIETARY	NOT EST.	NOT EST.	NOT EST.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE : 100 - 242 DEG.C

VAPOR PRESSURE: 1.8 mmHg

VAPOR DENSITY : HEAVIER THAN AIR

VOL/VOLUME : 56.90

EVAP RATE(BUOAc=100): 12

SOLUBILITY IN WATER: 0.2 %

WT/GAL (LBS): 8.19

pH: N/A

SOLID BY WEIGHT: 54.8

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY: CUMBUSTIBLE

FLASHPOINT: "110 DEG: VF PMCC

FLAMMABLE LIMITS: LEL 0.9 UEL N/A

EXTINGUISHING MEDIA:

USE NATIONAL FIRE PROYECTION ASSOCIATION (NFPA) CLASS 8 EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL, OR UNIVERSAL AQUEOUS FILM FORMING FOAM) DESIGNED TO EXTINGUISH NFPA CLASS II COMBUSTIBLE LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

KEEP CONTAINERS, TIGHTLY CLOSED AISOLATE EROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, AND OPEN FLAMES. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT COMO APPLY ON A SURFACES. TOXIC GASES MAY FORM WHEN PRODUCT IS CONTACTED BY FLAME OR HOT SURFACES.

SPECIAL FIRE FIGHTING PROCEDURES:

WATER SPRAY MAY BE INEFFECTIVE. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS TO A PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. FIRE-FIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS.

SECTION V - REACTIVITY DATA

HAZARDOUS POLYMERIZATION: NOT EXPECTED TO OCCUR STABLE STABLE

INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID): AVOID CONTACT WITH STRONG ALKALIES, STRONG MINERAL ACIDS, OR STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:

MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS WHEN HEATED, WELDING, BRAZING, OR FLAME-CUTTING ON SURFACES COATED WITH THIS PRODUCT MAY PRODUCE FUMES INCLUDING: Carbon Monoxide.

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SECTION VI - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: PROVIDE MAXIMUM VENTILATION. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND SKIN AND EYE PROTECTION SHOULD BE PERMITTED IN THE AREA. REMOVE ALL SOURCES OF IGNITION TAKE UP. CONTAINERS FOR DISPOSAL.

WASTE DISPOSAL METHOD:

WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL ENVIRCHMENTAL CONTROL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILTY.

SECTION VII - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE FROM:

INGESTION:

HARMFUL OR FATAL IF SWALLOWED. DRIED FILM OF THIS PAINT MAY BE HARMFUL IF EATEN OR CHEWED.

EYE CONTACT:

CAUSES EYE IRRITATION.

SKIN CONTACT:

MAY CAUSE MODERATE SKIN IRRITATION. MAY BE ABSORBED THROUGH THE SKIN.

PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.

INHALATION:

VAPOR AND SPRAY MIST MAY BE HARMFUL IF INHALED. MAY CAUSE LUNG IRRITATION AND ALLERGIC RESPIRATORY REACTION. REPEATED EXPOSURE TO HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION OF THE RESPIRATORY INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL; OR FATAL.

REPEATED EXPOSURE:

AVOID LONG-TERM AND REPEATED CONTACT.

SIGNS AND SYMPTONS OF OVEREXPOSURE:

EYE WATERING, HEADACHIES, NAUSEA, DIZZINESS, AND LOSS OF COORDINATION ARE INDICATIONS THAT .. SOLVENT LEVELS ARE TOO HIGH. !! HER PERSON HER TO BE WATER A STREET REDNESS, ITCHING, BURNING SENSATIONS AND VISUAL DISTURBANCES MAY BE INDICATIONS THAT EXCESSIVE EYE CONTACT HAS OCCURED. DRYNESS, ITCHING, CRACKING, BURNING, REDNESS, AND SWELLING ARE CONDITIONS ASSOCIATED WITH EXCESSIVE SKIN CONTACT.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NOT APPLICABLE

SECTION VIII - FIRST AID PROCEDURES

INGESTION:

IF SWALLOWED, DO NOT INDUCE VOMITING.

EYE CONTACT:

IN CASE OF EYE CONTACT, FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

SKIN CONTACT:

SOAP AND WATER. THE PROMPTLY BY WIPINGS FOLLOWED BY WATERLESS HAND CLEANER AND

INHALATION:

IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR. APPLY ARTIFICIAL * RESPIRATION AND OTHER SUPPORTIVE MEASURES AS HEQUIRED.

OTHER:

IF ANY OF THE FOLLOWING OCCUR DURING OR FOLLOWING USE OF THIS PRODUCT, CONTACT A POISON

Continued on Page 2

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DATE OF PREP: 3/06/86

CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN IMMEDIATELY; HAVE MATERIAL SAFETY DATA SHEET INFORMATION AVAILABLE. *INGESTICK: *EXCESSIVE EXPOSURE TO A CORROSIVE MATERIAL. *PERSISTENT SKIN/EYE IRRITATION OR BREATHING DIFFICULTIES.

SECTION IX - PROTECTION INFORMATION

PERSONAL PROTECTIVE EQUIPMENT FOR:

EYE PROTECTION:

WEAR CHEMICAL-TYPE SPLASH GOGGLES OR FULL FACE SHIELD.

SKIN PROTECTION:

WEAR PROTECTIVE CLOTHING, INCLUDING IMPERMEABLE APRON AND GLOVES CONSTRUCTED OF:

RESPIRATORY PROTECTION:

OVEREXPOSURE TO VAPORS MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS, VAPOR EXHAUST OR FRESH AIR ENTRY. NIOSH/MSHA APPROVED (TC-23C-) PAINT SPRAY OR AIR SUPPLIED (TC-19C-) RESPIRATORS MAY ALSO REDUCE EXPOSURE. IN ALL CASES, READ RESPIRATOR MANUFACTURER'S INSTRUCTIONS AND LITERATURE CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE AND HOW IT IS TO BE PROPERLY FITTED.

OTHER EQUIPMENT:

CLEAN OR DISCARD CONTAMINATED CLOTHING AND SHOES.

VENTILATION REQUIREMENTS:

PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS. THE LEL IN SECTION IV BELOW THE STATED LIMIT. AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

DO .. IT STORE ABOVE, 120 DEGREES F. STORE LARGE QUANTITIES IN BUILDINGS DESIGNED AND PROTECTED FOR STORAGE OF NEPA CLASS II COMBUSTIBLE LIQUIDS.

OTHER PRECAUTIONS:

IF THIS MATERIAL IS PART OF A MULTIPLE COMPONENT COATING SYSTEM, READ THE MATERIAL SAFETY DATA SHEET(S) FOR THE OTHER COMPONENT OR COMPONENTS BEFORE BLENDING AS THE RESULTING MIXTURE MAY HAVE THE HAZARDS OF ALL OF ITS PARTS.

CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREE FALL OF LIQUIDS IN EXCESS OF A FEW INCHES.

ALL CHEMICAL SUBSTANCES IN THIS PRODUCT COMPLY WITH ALL APPLICABLE RULES OR ORDERS UNDER THE ENVIRONMENTAL PROTECTION AGENCY'S TOXIC SUBSTANCE CONTROL ACT.

THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910, 1200)

COMPANY Name: SEQUOYAH NICLEAR PLANT TENNESSEE VALLEY AUTHORITY
Applicable APCB Certificate #: (CONST SAM) BUSTING & PAINT SHOP)
Product Name: QUICK DEY GIAMELS
Product Manufacturer: PPG INDUSTRIES INC
Usage Data
Daily (gal/day): 2-/260 = 0.008
Annual (gal/yr): 30/15 = 2
Rule 25.43 & 25.44
Analysis or Manufacturers Certification Data*: See ATTRICHED M SD5
As Received (Concentrated):
Density (lbs/gal):
Solids % by Weight: 55 % by Volume: 40
voc % by Weight: 45 % by Volume: 60
Water % by Weight: O % by Volume: O
As Applied (Diluted): SAME AS ABOVE
Density (lbs/gal): % by Volume:
Solids % by Weight: % by Volume:
VOC % by Weight: % by Volume:
Water % by Weight: % by Volume:
Thinner Data
Chemical Composition: NA
Density (lbs/gal):
Mfr. Data Sheet or Certification is attached. YesNo
*For NSPS Sources Method 24 must be used.
This is to certify that this information is true and complete to the best of my knowledge. Signature: Manager of Environments approximation is true and complete to the best of my knowledge.

11/03/89 RMP

HMC 2901

HMC 2900 MATERIAL SAFETY DATA SHEET COATINGS AND RESINS GROUP

SECTION I - PRODUCT INFORMATION 54-8 CODE/IDENTITY : 54-B MANUFACTURER'S NAME: PPG INDUSTRIES INC. TRADE NAME: QUICK DRY ENAMELS 54-150 54-310 54-352C 54-129C PRODUCT SAFETY LOC .: 260 KAPPA DRIVE CHEMICAL FAMILY: ALKYD 54-150C 54-311 54-110 54-138C PITTSBURGH, PA 15238 MSDS CONTACT: MANAGER, INDUSTRIAL HYGIENE US-DOT:PAINT, COMBUSTIBLE LIQUID DATE OF PREPARATION: 11/09/87 54-2000 54-313 54-1100 54-200 54-302 54-321 58-120C 54-308 34-352 54-1240 (412) 963-5822 CUSTOMER PART #: (304) 843-1300 EMERGENCY TELEPHONE: SECTION II - INGREDIENTS LIMITS E.X POSURE MAXIMUM MAXIMUM %WT. CAS NO. ACGIH TLV OSHA PEL PPC IPEL = DOMO/M3 NOT EST. 5.00Mg/M3 51274-00-1 15 IRON OXIDE NOT EST. NOT EST. NOT EST. 10 NOT EST PIGMENTS 10.00Mg/M3 10.00Mg/M3 15.00Mg/M3 13463-67-7 10.00Mg/M3 30 TITANIUM DIOXIDE # 10.00Mg/M3 NOT EST. 1335-30-4 10 ALUMINUM SILICATE NOT EST. NOT EST. NOT EST. 64742-88-7 MEDIUM ALIPHATIC SOLVENT NAPHTHA 50 100.00PPM 100.00PPM 1330-20-7 100.00PPM XYLEKE 100.00PPM 100.00PPM 100.00PPM 100-41-4 ETHYL BENZENE PROPRIETARY NOT EST. NOT EST. NOT EST. FILM FORMERS, RESIKS, AND ADDITIVES 40 CARCINGGENIC ACCORDING TO CRITERIA ESTABLISHED BY: * = NTP ** = TARC @ = OSHA SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS SOLUBILITY IN WATER: <1 % BOILING RANGE : 136 - 242 DEG.C VAPOR PRESSURE: <3 mmHg SCH WT/GAL (LBS): 8-10 (U.S.) VAPOR DENSITY : HEAVIER THAN AIR pH: U/1 % SOLID BY WEIGHT: 46-63 % VOL4 VOLUME : 48-72 SECTION IV - FIRE AND EXPLOSION HAZARD DATA EVAP RATE(BUOAC=100): US DOT CATEGORY: COMBUSTIBLE FLAMMABLE LIMITS. LEL 0.9 UEL U/1 FLASHPOINT: 102 DEG. F PMCC EXTINGUISHING MEDIA: USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL, OR UNIVERSAL AQUEOUS FILM FORMING FOAM) DESIGNED TO EXTINGUISH NFPA CLASS 11 COMBUSTIBLE LIQUID FIRES. UNDSUAL FIRE AND EXPLOSION HAZARDS: KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, AND OPEN FLAMES. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY ON HOT SURFACES. TOXIC GASES MAY FORM WHEN PRODUCT IS CONTACTED BY FLAME OR HOT SURFACES. SPECIAL FIRE FIGHTING PROCEDURES: WATER SPRAY MAY BE INEFFECTIVE. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. FIRE-FIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS. SECTION V - REACTIVITY DATA HAZARDOUS POLYMERIZATION: NOT EXPECTED TO OCCUR STABILITY: STABLE INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID): AVOID CONTACT WITH STRONG ALKALIES, STRONG MINERAL ACIDS, OR STRONG OXIDIZING AGENTS. HAZARDOUS DECOMPOSITION PRODUCTS: MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS WHEN HEATED. WELDING, BRAZING, OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT MAY PRODUCE FUMES INCLUDING: Carbon Monoxide SECTION VI - SPILL OR LEAK PROCEDURES STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLEDA.

PROVIDE MAXIMUM VENTILATION. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND SKIN AND EYE PROTECTION SHOULD BE PERMITTED IN THE AREA. REMOVE ALL SOURCES OF IGNITION. TAKE UP SPILLED MATERIAL WITH SAWDUST, VERMICULITE, OR OTHER ABSORBENT MATERIAL AND PLACE INTO

WASTE DISPOSAL METHOD:

WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILITY.

SECTION VII - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE FROM:

INGESTION:

HARMFUL OR FATAL IF SWALLOWED .

EYE CONTACT:

CAUSES EYE IRRITATION.

CONTAINERS FOR DISPOSAL.

SKIN CONTACT:

MAY CAUSE MODERATE SKIN IRRITATION.

INHALATION:

CONTINUED ON PAGE 2

IN-PLANT HAZARD RATING

FLAMMOBILITY PROTECTIVE 0

EQUIPMENT

VAPOR AND SPRAY, MIST MAY BE HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT. REPEATED EXPOSURE TO HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION OF THE RESPIRATORY SYSTEM AND PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL.

CHRONIC OVEREXPOSURE:

AVOID LONG-TERM AND REPEATED CONTACT. THIS PRODUCT CONTAINS TITANIUM DIOXIDE. ANIMALS INHALING MASSIVE QUANTITIES OF TITANIUM DECEMBER OF THIS PIGMENT MOTICATE NO INCREASED RISK OF CANCER FROM EXPOSURE. POTENTIAL FOR INHALATION OF TITANIUM DIOXIDE DUSTS FROM COATINGS IS VERY LAMITED AND OVEREXPOSURES ARE NOT EXPECTED.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

EYE WATERING, HEADACHES, NAUSEA, DIZZINESS, AND LOSS OF COORDINATION ARE INDICATIONS THAT SOLVENT LEVELS ARE TOO HIGH. REDNESS, ITCHING, BURNING SENSATION AND VISUAL DISTURBANCES MAY INDICATE EXCESSIVE EYE CONTACT. DRYMESS, ITCHING, CRACKING, BURNING, REDNESS, AND SWELLING ARE CONDITIONS ASSOCIATED WITH EXCESSIVE SKIN CONTACT.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NOT APPLICABLE
SECTION VIII - FIRST AID PROCEDURES

INGESTION:

IF SWALLOWED, DO NOT INDUCE VOMITING.

EYE CONTACT:

IN CASE OF EYE CONTACT, FLUSH EYES : MMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

SKIN CONTACT:

IN CASE OF SKIN CONTACT, REMOVE PROMPTLY BY WIPING, FOLLOWED BY WATERLESS HAND CLEANER AND SOAP AND WATER.

INHALATION:

IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR. APPLY ARTIFICIAL RESPIRATION AND OTHER SUPPORTIVE MEASURES AS REQUIRED.

OTHER:

IF ANY OF THE FOLLOWING OCCUR DURING OR FOLLOWING USE OF THIS PRODUCT, CONTACT A POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN IMMEDIATELY; HAVE MATERIAL SAFETY DATA SHEET INFORMATION AVAILABLE. *INGESTION *EXCESSIVE EXPOSURE TO A CORROSIVE MATERIAL. * PERSISTENT SKIN/EYE IRRITATION OR BREATHING DIFFICULTIES.
SECTION IX - PROTECTION INFORMATION

PERSONAL PROTECTIVE EQUIPMENT FOR:

EYE PROTECTION:

WEAR CHEMICAL TYPE SPLASH GOGGLES OR FULL FACE SHIELD.

SKIN PROTECTION:

WEAR PROTECTIVE CLOTHING, INCLUDING IMPERMEABLE APRON AND GLOVES CONSTRUCTED OF: . NITRILE RUBBER, NEOPRENE RUBBER OR POLYVINYL ALCOHOL

RESPIRATORY PROTECTION:

OVEREXPOSURE TO VAPORS MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS, VAPOR EXHAUST OR FRESH AIR ENTRY. NIOSH/MSHA-APPROVED (TC-23C-) PAINT SPRAY OR AIR SUPPLIED (TC-19C-) RESPIRATORS MAY ALSO REDUCE EXPOSURE. READ RESPIRATOR MANUFACTURER'S INSTRUCTIONS AND LITERATURE CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE AND HOW IT IS TO BE PROPERLY FITTED.

OTHER EQUIPMENT:

CLEAN OR DISCARD CONTAMINATED CLOTHING AND SHOES.

VENTILATION REQUIREMENTS

PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS, THE LEL IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

DO NOT STORE ABOVE 120 DEGREES F. STORE LARGE QUANTITIES IN BUILDINGS DESIGNED AMD PROTECTED FOR STORAGE OF NFPA CLASS II COMBUSTIBLE LIQUIDS.

OTHER PRECAUTIONS:

IF THIS MATERIAL IS PART OF A MULTIPLE COMPONENT COATING SYSTEM, READ THE MATERIAL SAFETY DATA SHEET(S) FOR THE OTHER COMPONENT OR COMPONENTS BEFORE BLENDING AS THE RESULTING MIXTURE MAY HAVE THE HAZARDS OF ALL OF ITS PARTS. CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREE FALL OF LIQUIDS IN EXCESS OF A FEW

ALL CHEMICAL SUBSTANCES IN THIS PRODUCT COMPLY WITH ALL APPLICABLE RULES OR ORDERS UNDER THE ENVIRONMENTAL PROTECTION AGENCY'S TOXIC SUBSTANCES CONTROL ACT.

THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

U/1 = UNKNOWN INFORMATION

N/A = NOT APPLICABLE

NOT EST. = NOT ESTABLISHED

Company Name: SERVOYAH NOCUER PLANT	TENNESSEE VALLEY AUTHORITY
Applicable APCB Certificate #: CONST	SAND BUSTING & PAINT SHOP)
Product Name: IVY GREEN ENA	
Product Manufacturer: PTG INOU	
Usage Data	
Daily (gal/day): 2/260 = 0.	008
Annual (gal/yr): $30/15 = 2$	
Rule 25.43 & 25.44	
Analysis or Manufacturers Ce. :ificati	on Data*: SEE DITACHED M SDS
As Received (Concentrated):	
Density (lbs/gal): 7.3	35
Solids % by Weight: 25	% by Volume:
voc % by Weight: 75	% by Volume: 83
Water % by Weight:	% by Volume:
As Applied (Diluted): SAME AS	NEOVE
Density (lbs/gal):	% by Volume:
Solids % by Weight:	% by Volume:
VOC % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data	
Chemical Composition:	
Density (lbs/gal):	
Mfr. Data Sheet or Certification is a	ttached. YesNo
*For NSPS Sources Method 24 must be used	
This is to certify that this information best of my knowledge. Signatu	re: 6 millimiertich
11/03/89	10: MANAGER OF ENVIRONMENTAL OLDLITY

RMP

H M C - 1646

NPCA 1-72 FOR COATINGS, RESINS AND RELATED MATERIALS

Date of PREP: 09/28/82

(Similar to Form OSHA-20)

SECTION !

Manufacturer's Name: PPG Industries, Inc. Coatings & Resins Group

Address:

Pittsburgh, Pa 15238 260 Kappa Drive

Attn: Manager, Industrial Hygiene and Product Safety

Emergency Telephone: (304) 843-1300

Product Class: AEROSOL SPRAY PAINT

Manufacturer Code: 55-305

Trade Name: IVY GREEN ENAMEL

SECTION II - HAZARDOUS INGREDIENTS

INGSEDIENTS .	% WT.	*TLY(1984)	**PPG IFEL	CASNO	LEL	V.P.
	35	750.00 P	РМ .	67-64-1		186.0
2 PROPANONE	25	. NE		N.E.	2.2	8.0
MYDROCARBON PROPELLANTS	10	1600.00 P	PM	64-17-5	3.3	**
ETHYL ALCOHOL	5	50.00 P	PM .	123-42-2	1.8	0.8
4-MYDROXY-4-METHYL-2-PENTANONE	< 5	100.00 P	PM .	1338-28-7	1.1	6.3
XYLENE		400.00 P	PM .	141-78-6	2.5	76
ETHYL ACETATE			PM .	78-93-3	1.8	71.2
9 - BUTANONE		***		The second secon		

NOTE 1 a Threshold Limit Value established by American Conference of Governmental Industrial Hypionists " . PPG'S Internal Permissible Exposure Limit

SECTION III - PHYSICAL DATA

Boiling Range: 56-164 DEG.C.

Vapor Density - HEAVIER THAN AIR

Wt/Gal: 7.35 83

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT Category: EXTREMELY FLAMMABLE Flashpoint: -156 DEG.F. TOC

LEL: 1.8 RECEIVED SON

MAY 27 1986

Extinguishing Media:

2-BUTANONE

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED

TO EXTINGUISH NEPA CLASS IA FLAMMABLE LIQUID FIRES.

Unusual Fire & Explosion Hazards:

AEROSOL CONTAINERS HOLDING EXTREMELY FLAMMABLE GAS AND FLAMMABLE LIQUID. CONTENTS UNDER PRESSURE. CONTAINERS SHOULD BE ISOLATED FROM HEAT, SPARKS, AND OPEN FLAME. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY TO HOT SURFACES.

Special Fire Fighting Procedures:

WATER SPRAY MAY BE INEFFECTIVE. WATER MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG MOZZLES ARE PREFERABLE.

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value: SEE SEC. 11

Effects of verexposure:

INHALATION: ANESTHETIC, IRRITATION OF THE RESPIRATORY TRACT OR ACUTE NERVOUS SYSTEM DEPRESSION CHARACTERIZED BY THE FOLLOWING PROGRESSIVE STEPS: HEADACHE, DIZZINESS, STAGGERING GAIT, CONFUSION, UNCONSCIOUSNESS, OR COMA. SKIN OR EYE CONTACT: PRIMARY IRRITATION. REPEATED OVEREXPOSURE TO SOLVENT VAPORS MAY CAUSE PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE, INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL. EYE WATERING, HEADACHES, NAUSEA, DIZZINESS. AND LOSS OF COORDINATION ARE INDICATIONS THAT SOLVENT LEVELS ARE TOO HIGH.

Emergency and First Aid Procedures:

Continued on Back of Page

. Continuation of Manufacturer's Code - 55-305 Date of Prep: 09/28/82

H MC-1646

TOWARD HEAT, & RKS OR OPEN FLAME.

LEAKING CONTAINERS WILL PERMIT THE ACCUMULATION OF AN EXPLOSIVE CONCENTRATION OF VAPORS. INCOMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

COATING/THINNER DATA FORM

Company Name: SEQUOYAH NICLEAR PLANT	TONKESEE VALLEY DUTHORITY
Applicable APCB Certificate #: CONST	SAMD BUSTING & PAINT SHOP)
Product Name: SLVER ENMEL	CALLED OF THE PROPERTY OF THE
Product Manufacturer: 176 FND67	TRIPS INC
Usage Data	
Daily (gal/day): 2/260 = 0.0	283
Annual (gal/yr): 30/15=2	
Rule 25.43 & 25.44	
Analysis or Manufacturers Certificatio	in Data*: SEE DITTOCHED M SDS
As Received (Concentrated):	
Density (lbs/gal):7.5	54
Solids % by Weight: 35	% by Volume:
voc % by Weight: 65	% by Volume: <u>84.5</u>
Water % by Weight:	% by Volume:
As Applied (Diluted): SAME AS	ABOVE
Density (lbs/gal):	% by Volume:
Solids % by Weight:	% by Volume:
Voc % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data	
Chemical Composition: NA	
Density (lbs/gal):	
Mfr. Data Sheet or Certification is at	tached. Yes VNo
*For NSPS Sources Method 24 must be used.	
This is to certify that this information best of my knowledge. Signatur Titl	is true and complete to the e: Manager of Environmental apur
11/03/89	for the Delivery of the second

11/03/89 RMP FOR COATINGS, RESINS AND RELATED MATERIALS (Similar to Ferm OSHA-20)

Date of PREP: 07/20/83

SECTION I

Coatings & Resins Group Manufacturer's Name: FFG Industries, Inc. Pittsburgh, Pa 15238

Address:

260 Kappa Drive

Attn: Manager, Industrial Hygiene and Product Safety

Emergency Telephone: (304) 843-1300

Product Class: AEROSOL-SPOAT FAIRT

Manufacturer Code: 55-310

100

Trade Name: SEESTMERAMEL

SECTION II - HAZARDOUS INGREDIENTS

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INUREDIENTS

A TOWN

EYLENE 8-PROPANONE MYDROCARBON PROPELLANTS W WT. "TLV[1986]

1226-26-1 8.6 87-66-1 .. M.E. '

« 25 MOTE: " " Trevenold Lind Value of of the Arrest Note Exposure Lines o ppg & internet Person

SECTION III - PHYSICAL DATA

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Boiling Range: -42-145 DEG.C. Evaporation Rate - FASTER THAN ETHER

- HEAVIER THAN AIR Vapor Density Wt/6a1: 7.54 # Volatile/Vol: 84.5

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT Category: EXTREMELY FLAMMABLE Flashpoint: -156 DEG.F. TOC

Extinguishing Media:

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED TO EXTINGUISH NEPA CLASS IA FLAMMABLE LIQUID FIRES.

Unusual Fire & Explosion Hazards:

AEROSOL CONTAINERS HOLDING EXTREMELY FLAMMABLE GAS AND FLAMMABLE LIQUID. CONTENTS UNDER PRESSURE. CONTAINERS SHOULD BE ISOLATED FROM HEAT, SPARKS, AND OPEN FLAME. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY TO HOT SURFACES.

Special Fire Fighting Procedures:

WATER SPRAY MAY BE INEFFECTIVE. WATER MAY BE USED TO COOL CLOSED CEIVED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION COOL OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FUG MOZZLES ARE PREFERABLE.

SECTION V - HEALTH HAZARD DATA

MAY 27 1988

Threshold Limit Value: SEE SEC. 11

Effects of Overexposure:

INHALATION: AMESTHETIC, IRRITATION OF THE RESPIRATORY TRACT OR ACUTE HERVOUS SYSTEM DEPRESSION CHARACTERIZED BY THE FOLLOWING PROGRESSIVE STEPS: HEADACHE, DIZZINESS, STADGERING GAIT, CONFUSION, UNICONSCIOUSNESS, OR COMA. SKIN OR EYE CONTACT: PRIMARY MRITATION REPEATED OVEREXPOSURE TO SOLVENT VAPORS MAY CAUSE PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND DINALING THE CONTENTS CAN BE MARMFUL OR FATAL. EYE WATERING, MEADACHES, NALISEA, DEZZINESS. AND LOSS OF COORDINATION ARE INDICATIONS THAT SOLVENT LEVELS ARE TOO HIGH.

Emergency and First Aid Procedures:

FUMES: REMOVE FROM EXPOSURE, RESTORE BREATHING, KEEP WARM AND QUIET, NOTIFY & PHYSICIAN, SPLASH (EYES): FLUSH MAMEDIATELY WITH COPIOUS QUANTITIES OF RUNNING WATER FOR AT LEAST 15 MINUTES. TAKE TO A PHYSICIAN FOR DEFINITIVE MEDICAL TREATMENT, SPLASH (SKIN): WASH AFFECTED AREAS WITH WATER, REMOVE CONTAMINATED CLOTHING.

198000

SECTION VI - REACTIVITY DATA

TABILITY: STABLE Conditions to Avoid: UNKNOWN Incompatibility (Materials to Avoid):

OXIDIZING ADENTS

Mazardous Decomposition Products:

May produce hazardous furnes when heated to decomposition as in welding.

Fumes may contain: Carbon Monoxide

Hazardous Polymerization - WILL NOT OCCUR

CONDITIONS TO AVOID:

UNKHOWN

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Release or Spilled:

REMOVE ALL SOURCES OF IGNITION (FLAMES, MOT SURFACES, AND ELECTRICAL; STATIC, OR FRICTIONAL SPARKS). AVOID BREATHING VAPORS, VENTILATE AREA, REMOVE WITH INERT ABSORBENT AND MON-SPARKING TOOLS.

Waste Disposal Method:

DISPOSE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. DO NOT PLANCTURE OR INCINERATE CONTAINERS.

SECTION VIII - SPECIAL PROTECTION INFORMATION.

Respiratory Protection:

OUTDOOR/OPEN AREAS: USE FILTER TYPE RESPIRATORS (NIOSH/MSHATC21C) TO REMOVE SOLID AIRBORNE PARTICULATES FROM OVERSPRAY, RESTRICTED VENTILATION AREAS: USE COMBINATION ORGANIC VAPOR-FILTER TYPE RESPIRATORS (NIOSH/MSHATC23C) DESIGNED TO PURIFY THE AIR BY REMOVING SOLID AIRBORNE PARTICULATES AND ORGANIC VAPORS. CONFINED AREAS: USE SUPPLIED AIR RESPIRATORS OR HOODS (NIOSH/MSHATC19C). IN ALL CASES, PLEASE READ MANUFACTURER'S INSTRUCTIONS CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE. AND HOW IT IS TO BE PROPERLY FITTED.

Ventilation:

PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF HAZ ARDOUS INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS. THE LEL IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

Protective Gloves:

REQUIRED FOR PROLONGED OR REPEATED CONTACT.

Eye Protection:

USE SAFETY EYEWEAR DESIGNED TO PROTECT AGAINST SPLASH OF LIQUIDS.

Other Protective Equipment:

PREVENT PROLONGED SKIN CONTACT TO CONTAMINATED CLOTHING.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing:

(CANGER! EXTREMELY FLAMMABLE, DO NOT STORE MEAR FIRE OR OPEN FLAME, DO NOT STORE ABOVE 120 F. WARNING! CONTENTS UNDER PRESSURE, DO NOT PUNCTURE OR INCINERATE CONTAINER, EXPOSURE TO HEAT OR PROLONGED EXPOSURE TO SUN MAY CAUSE VIOLENT BURSTING OF CONTAINER

Other Precautions:

DO NOT TAKE INTERNALLY, AVOID PROLONGED OR REPEATED CONTACT WITH SKIN AND BREATHING OF VAPOR OR SPRAY MIST. DO NOT WEAR CONTAMINATED CLOTHING, SHOES OR GLOVES. DO NOT SPRAY NEAR OR TOWARD HEAT, SPARKS OR OPEN FLAME.

LEAKING CONTAINERS WILL PERMIT THE ACCUMULATION OF AN EXPLOSIVE CONCENTRATION OF VAPOR.

COATING/THINNER DATA FORM

COMPANY NAME: SEQUOYAH NICLEAR PLANT TENNESSEE VALLEY AVINCETY				
Applicable APCB Certificate #: (CONST SAND BUSTING & PAINT SHOP)				
Product Name: FLAT WHITE SPRAY GNAMEL				
Product Manufacturer: PPG THOUSTRIPS INC				
Usage Data				
Daily (gal/day): 2/260 = 0.008				
Annual (gal/yr): $\frac{30/15}{2}$				
Rule 25.43 & 25.44				
Analysis or Manufacturers Certification Data*: See Drocked M 505				
As Received (Concentrated):				
Density (lbs/gal): 7.06				
Solids % by Weight: 23,6 % by Volume: 8,9				
voc % by Weight: 76,4 % by Volume: 91.10				
Water % by Weight: & by Volume:				
As Applied (Diluted): SAME AS ABOVE				
Density (lbs/gal): % by Volume:				
Solids % by Weight: % by Volume:				
Voc % by Weight: % by Volume:				
Water % by Weight: % by Volume:				
Thinner Data				
Chemical Composition: NA				
Density (lbs/gal):				
Mfr. Data Sheet or Certification is attached. YesNo				
*For NSPS Sources Method 24 must be used.				
This is to certify that this information is true and complete to the best of my knowledge. Signature: Manager of Environmental approximation is true and complete to the best of my knowledge.				

11/03/89 RMP

MATERIAL SAFETY DATA SHEET COATINGS AND RESINS GROUP



SECTION I - PRODUCT INFORMATION

MANUFACTURER'S NAME: PPG INDUSTRIES INC. PRODUCT SAFETY LOC .: 260 KAPPA DRIVE

PITTSBURGH, PA 15238

MSDS CONTACT: MANAGER, INDUSTRIAL HYGIENE

AND PRODUCT SAFETY (412) 963-5822

CODE/IDENTITY : 55-317

TRADE NAME: FLAT WHITE SPRAY ENAMEL CHEMICAL FAMILY: ALKYD

US-DOT: COMPRESSED GAS, N.O.S. DATE OF PREPARATION: 1/28/88

CUSTOMER PART #:

HMC 2411

(030587M)

(304) 843-1300 EMERGENCY TELEPHONE:

SECTION II - INGREDIENTS

EXPOSURE LIMITS APPROX. WHT. CAS NO. ACGIH TLV OSHA PEL PPG IPEL

10.00Mg/M3 15.00Mg/M3 10 13463-67-7 10.00Mg/M3 TITANIUM DIOXIDE # 1317-65-3 10.00Mg/M3 NOT EST. 10.00Mg/M3 10 CALCIUM CARBONATE 200.00PPM 200.00PPM 78-93-3 200.00PPM 10 METHYL ETHYL KETONE 67-64-1 750.00PPM 1000.00PPM 750 00PPM 20 ACETONE 100.00PPM 20 1330-20-7 100.00PPM 100.00PPM XYLENE NOT EST. NOT EST. NOT EST. 15 74-98-6 PROPANE NOT EST. NOT EST. 15 75-28-5 NOT EST. ISOBUTANE NOT EST. NOT EST. NOT EST. PROPRIETARY FILM FORMERS, RESINS, AND ADDITIVES

CARCINOGENIC ACCORDING TO CRITERIA ESTABLISHED BY: * = NTP ** = IARC & = OSHA # = SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS A = OSHA # = OTHER

BOILING RANGE : -56 - 145 DEG.C

VAPOR PRESSURE: 57.4 mmHg

VAPOR DENSITY : HEAVIER THAN AIR % VOL/VOLUME : 91.10

EVAP RATE(BUOAC=100): 389

SOLUBILITY IN WATER: 20.6 % WT/GAL (LBS): 7.06 (U.S.) pH: U/I

% SOLID BY WEIGHT: 23.6

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

US-DOT CATEGORY: EXTREMELY FLAMMABLE

FLASHPOINT: 15 DEG. F PMCC

FLAMMABLE LIMITS: LEL 2.3 UEL U/I

EXTINGUISHING MEDIA

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL, OR UNIVERSAL AQUEOUS FILM FORMING FOAM) DESIGNED TO EXTINGUISH NFPA CLASS IA FLAMMABLE LIQUID FIRES.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, AND OPEN FLAMES. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY ON HOT SURFACES. TOXIC GASES MAY FORM WHEN PRODUCT IS CONTACTED BY FLAME OR HOY SURFACES. AEROSOL-CONTAINERS HOLD EXTREMELY FLAMMABLE GAS AND FLAMMABLE LIQUID UNDER PRESSURE.

SPECIAL FIRE FIGHTING PROCEDURES:

WATER SPRAY MAY BE INEFFECTIVE. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT PRESSURE BUILD-UP AND POSSIBLE AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. FIRE-FIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS. SECTION V - REACTIVITY DATA

STABILITY: STABLE HAZARDOUS FOLYMERIZATION: NOT EXPECTED TO OCCUR INCOMPATIBILITY (MATERIALS AND CONCITIONS TO AVOID): STABILITY: STABLE

AVOID CONTACT WITH STRONG ALKALIES, STRONG MINERAL ACIDS, OR STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS:

MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS WHEH! HEATED. WELDING, BRAZING, OR FLAME-CUTTING ON SURFACES COATED WITH THIS PRODUCT MAY PRODUCE FUMES INCLUDING:

Carbon Monoxide

SECTION VI - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

PROVIDE MAXIMUM VENTILATION. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND SKIN AND EYE PROTECTION SHOULD BE PERMITTED IN THE AREA. REMOVE ALL SOURCES OF IGNITION. TAKE UP SPILLED MATERIAL WITH SAWDUST, VERMICULITE, OR OTHER ABSORBENT MATERIAL AND PLACE INTO CONTAINERS FOR DISPOSAL.

WASTE DISPOSAL METHOD

WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILTY.
SECTION VII - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE FROM:

INGESTION:

HARMFUL OR FATAL IF SWALLOWED.

EYE CONTACT:

CAUSES EYE IRRITATION.

SKIN CONTACT:

MAY CAUSE MODERATE SKIN IRRITATION.

INHALATION:

CONTINUED ON PAGE 2

Continuation of Manufacturer's Code - 55-317

PATE OF PREP: 1/28/88



VAPOR AND SPRAY MIST MAY BE HARMFUL IF INHALED.

VAPOR IRRITATES EYES, NOSE, AND THROAT.

REPEATED EXPOSURE TO HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION OF THE RESPIRATORY SYSTEM AND PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE.

INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL.

CHRONIC OVEREXPOSURE:

AVOID LONG-TERM AND REPEATED CONTACT.

THIS PRODUCT CONTAINS TITANIUM DIOXIDE. ANIMALS INHALING MASSIVE QUANTITIES OF TITANIUM DIOXIDE DUST IN A LONG-TERM STUDY DEVELOPED LUNG TUMORS. STUDIES WITH HUMANS INVOLVED IN MANUFACTURE OF THIS PIGMENT INDICATE NO INCREASED RISK OF CANCER FROM EXPOSURE. POTENTIAL FOR INHALATION OF TITANIUM DIOXIDE DUSTS FROM COATINGS IS VERY LIMITED. SINCE OVEREXPOSURES ARE NOT EXPECTED, THERE IS NO SIGNIFICANT HAZARD FOR MAN.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

EYE WATERING, HEADACHES, NAUSEA, DIZZINESS, AND LOSS OF COORDINATION ARE INDICATIONS THAT

SOLVENT LEVELS ARE TOO HIGH.

PEDNESS, ITCHING, BURNING SENSATION AND VISUAL DISTURBANCES MAY INDICATE EXCESSIVE EYE

CONTACT.

DRYNESS, ITCHING, CRACKING, BURNING, REDNESS, AND SWELLING ARE CONDITIONS ASSOCIATED WITH EXCESSIVE SKIN CONTACT.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NOT APPLICABLE SECTION VIII - FIRST AID PROCEDURES

INGESTION:

IF SWALLOWED, DO NOT INDUCE VOMITING.

EYE CONTACT:

IN CASE OF EYE CONTACT, FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15

MINUTES.

SKIN CONTACT:

IN CASE OF SKIN CONTACT, REMOVE PROMPTLY BY WIPING, FOLLOWED BY WATERLESS HAND CLEANER AND

SOAP AND WATER.

INHALATION:

IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR. APPLY ARTIFICIAL

RESPIRATION AND OTHER SUPPORTIVE MEASURES AS REQUIRED.

OTHER:

IF ANY OF THE FOLLOWING OCCUR DURING OR FOLLOWING USE OF THIS PRODUCT, CONTACT A POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN IMMEDIATELY; HAVE MATERIAL SAFETY DATA SHEET INFORMATION AVAILABLE. *INGESTION *EXCESSIVE EXPOSURE TO A CORROSIVE MATERIAL.

* PERSISTENT SKIN/EYE IRRITATION OF BREATHING DIFFICULTIES.
SECTION IX - PROTECTION INFORMATION

PERSONAL PROTECTIVE EQUIPMENT FOR:

EYE PROTECTION:

WEAR CHEMICAL TYPE SPLASH GOGGLES OR FULL FACE SHIELD.

SKIN PROTECTION:

WEAR PROTECTIVE CLOTHING, INCLUDING IMPERMEABLE APRON AND GLOVES CONSTRUCTED OF: POLYVINYL ALCOHOL, NEOPREAD JBBER, NITRILE RUBBER OR LATEX RUBBER

RESPIRATORY PROTECTION:

OVEREXPOSURE TO VAPORS MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS, VAPOR EXHAUST OR FRESH AIR ENTRY. NIOSH/MSHA-APPROVED (TC-23C-) PAINT SPRAY OR AIR SUPPLIED (TC-19C-) RESPIRATORS MAY ALSO REDUCE EXPOSURE. READ RESPIRATOR MANUFACTURER'S INSTRUCTIONS AND LITERATURE CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE AND HOW IT IS TO BE PROPERLY FITTED.

OTHER EQUIPMENT:

CLEAN OR DISCARD CONTAMINATED CLOTHING AND SHOES.

VENTILATION REQUIREMENTS:

PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF INGREDIENTS LISTED IN SECTION 11 BE OW THE LOWEST SUGGESTED EXPOSURE LIMITS, THE LEL IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

DO NOT STORE ABOVE 120 DEGREES F. STORE LARGE QUANTITIES IN BUILDINGS DESIGNED AND PROTECTED FOR STORAGE OF NFPA CLASS IA FLAMMABLE LIQUIDS.

OTHER PRECAUTIONS:

IF THIS MATERIAL IS PART OF A MULTIPLE COMPONENT COATING SYSTEM, READ THE MATERIAL SAFETY DATA SHEET(S) FOR THE OTHER COMPONENT OR COMPONENTS BEFORE BLENDING AS THE RESULTING MIXTURE MAY HAVE THE HAZARDS OF ALL OF ITS PARTS. ALL CHEMICAL SUBSTANCES IN THIS PRODUCT COMPLY WITH ALL APPLICABLE RULES OR ORDERS UNDER THE ENVIRONMENTAL PROTECTION AGENCY'S TOXIC SUBSTANCES CONTROL ACT.

THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH THE OSHA HAZARD

U/1 = UNKNOWN INFORMATION

COMMUNICATION STANDARD (29 CFR 1910.1200)

N/A = NOT APPLICABLE

NOT EST. = NOT ESTABLISHED

CERT. LTR. = CHEMICAL O.K. ON TSCA INVENTORY; CAS NO. NOT AVAILABLE PPIC 5635 (CUSTOMER NO.) LOCATION : 0809 8855/317////128

COATING/THINNER DATA FORM

Company Name: SEQUOYAH NOCLEAR PLANT	TENNESSEE VALLEY AUTHORITY
Applicable APCB Certificate #: CONS	T SAND BUSTING & PAINT SHOP)
Product Name: VARSOL 18	
Product Manufacturer: EXXON (COMPANY, USA
Usage Dava	
Daily (gal/day): 50/260 = 0	2
Annual (gal/yr): 50	
Rule 25.43 & 25.44	
Analysis or Manufacturers Certificat	tion Data*: SEE DETACHED MSDS
As Receive? (Concentrated):	
Density (lbs/gal):6	,5
Solids % by Weight:	
voc % by Weight:	% by Volume: ///
Water % by Weight:O	% by Volume: O
As Applied (Diluted): SAME AS	ABOVE
Density (lbs/gal):	% by Volume:
Solids % by Weight:	% by Volume:
VOC % by Weight:	% by Volume:
Water % by Weight:	% by Volume:
Thinner Data	
Chemical Composition: NA	
Density (lbs/gal):	
Mfr. Data Sheet or Certification is	attached. Yes No
*For NSPS Sources Method 24 must be use	ed.
This is to certify that this information best of my knowledge. Signat	ture: MANAGER OF ENVIRONMENTSL CAPUTY
** / 65 / 66	

11/03/89 RMP

MAY 12 1993

VARSOL 18

HMC

EXON COMPANY, USA MOSTANDERGS WORKED TO HOUSING A

DATE ISSUED 4/10/86

MATERIAL SAFETY DATA SHEET

EXXDN COMPANY, U.S.A. P.D. BOX 2180 HOUSTON, TX 77232-2180

A IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME

PRODUCT CODE

CHENICAL NAME Petrolaum Solvent CAS MUNIER

PRODUCT APPEARANCE AND ODOR Clear water-white liquid Mild mineral spirits odor

EMERGENCY TELEPHONE NUMBER (713) 656-3424

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS

CAS NO. OF APPROXIMATE COMPONENTS CONCENTRATION

This product can be defined as:

Mineral spirits

8032-32-4

It consists predominantly of C7-C10 hydrocarbons

C7-C10 saturated hydrocarbons Toluene

108-66-3 Mixture

Approximately 82+X Approximately 0.4% Approximately 0.5% Approximately 0.2% Approximately 6%

Ethylbenzene CB+ Aromatics

Xy1ene

See Section E for Health and Hazard Information

HETARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

Figith Planmability Reactivity BASIS

1 2 Recommended by Exxon

EXPOSURE LIMIT FOR TOTAL FHODUCT BASIS 100 ppm (590 mg/m3) for an 8-hour workday

Recommended by 1.3 American Conference of Governmental Industrial Mygienists (ACGIH) for Stoddard Solvent

C. EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT

If aplashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

SKIN CONTACT

In case of skin contact, remove any contaminated clothing and wash skin thoroughly with somp and water

INHALATION

If discome by vapor, remove from exposure and call a physician immediately. Irregular or has stopped, start resuscitation, administer oxygen, if svailable If breathing is

VARSUL 18

MATURE OF HAZARD AND TOXICITY INFORMATION
Prolonged or repeated skin contact with this product tends to remove skin bile possibly leading to irritation and demartitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" to not determine.

Product contacting the gyes may cause eye irritation.

Reports of animal studies using both sexes of several species have shown that kitchey damage can occur in male rets after prolonged and repeated inhalation exposures to light hydrocarbon vapors of the general type present in this product. While the damage is of a los order of severity in animals, the implications of these results for humans have not yet been

Product has a low order of acute oral and dermal toxicity, but minute amounts aspirated into

This product is judged to have an acute oral LDSO (rat) greater than 5 g/kg of body weight, and an acute derma: LDSO (rabbit) greater than 3.16 g/kg of body weight.

F. PHYSICAL DATA

The following data are approximate or typics! values and should not be used for precise design purposes.

BDILING RANGE Approximately 153-202'C (308-396'F)

SPECIFIC GRAVITY . 18.8 C/15.8 C)

MOLECULAR WEIGHT

pH Essentially neutral

POUP CONGEALING OR MELTING POINT Les. than -18°C (0°F) Pour Point by ASTM D 97

VISCOSITY O.80 CP + 25 C ASTM D 345 VAPUR PRESSURE Leds 25mm 10 cmm Hg # 25°C ASTM D 2879

VAPOR DEWISTY (AIR = 1)

PERCENT VOLATILE BY VOLUME 100 f : atm. and 25°C (77°F)

EVAPORATION RATE # 1 ATM. AND 25 C (77 F)

SQUUBILITY IN WATER P 1 ATM. AND 25 C (77 F) Nephigible: less than 0.1%

G. REACTIVITY

This product is stable and will not react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, rodius hypochlorite or calcius hypochlorics.

H SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Shut off and eliminate all ignitir sources. Keep people away. Recover free product. Add *And,
earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin
contact. Ventilate confined spaces. Open all kindows and doors. Keep product out of sewers and
watercourses by diking or impounding. Advise authorities if product has entered or may enter

VARSOL 18

criteria supplied by the developers of these rating systems, together with Excert's Interpretation of the evalishie data.

FOR ADDITIONAL INFORMATION DO: MEALTH EFFECTS CONTACT: DIRECTOR OF INDUSTRIAL MYGIENE EXXON CUMPANY, U.S.A. P. D. BOX 2160 RODH 2737 MOUSTON, TX 77252-2180 (713) 656-2443

FOR OTHER PRODUCT INFORMATION CONTACT:

BANAGER, MARKETING TECHNICAL SERVICES EXXON COMPANY, U.S.A. P. O. BOX 2180 HOOM 2455 HOUSTON, TX 77252-2180 (713) 646-5849

ATTACHMENT 1 REFERENCED ON THE E106 FORM FOR THE COESTRUCTION SANDBLAST AND PAINT SHOP

ATTACHMENT 1

POLLUTANT ESTIMATION CALCULATIONS FOR

SEQUOYAH NUCLEAR PLANT CONSTRUCTION SANDBLAST AND PAINT SHOP WITH TWO BUILDING ROOF EXHAUSTERS

Material: Carbo Zinc

Material Composition (as applied):

Ingredient	Fraction of 1 Gallon	Density 1bs/gal	Pounds in 1 Gallon	Percent by weight
Thinner Solids Ethanol Total	0.25 0.30 0.45 1.00	9 23 6.5	2.25 7 3 12.25	18.4 57.1 24.5 100.0

Density of paint as applied: 12.25 lbs/gallon

RACT (1bs VOC/gallon) = (Solvent fraction by weight)(Paint Density)

= (18.4% + 24.5 %)(12.25 lbs/galion)

= 5.26 lbs VOC/gallon

Use 5.3 lbs VOC/gallon

ENCLOSURE 9

DRAWINGS OF LUBRICATING OIL SYSTEM AND ASSOCIATED VENTS

The following drawings are included as part of enclosure 9.

1. Flow Diagram Turbine Drains and Miscellaneous Piping 47W807 - 1 2. Flow Diagram Lubricating Oil Systems 47W816 - 1

3. Description and Diagram of Vapor Extractor System I.L. 1250-3743

VAPOR EXTRACTION SYSTEM



I.L. 1250-3743

Date 4-7-69

lustration 24-J-355

259.3743

Gr.

Subs

Shop Dwg 721-J-193 651-B-448 4477-D-26 683-J-017

Shop Order 13-A-3169 Figure 1 is a diagrammatic illustration of the system used to remove oil vapor from the oil reservoir and the oil piping system. It also shows the system by which entrained hydrogen gas is removed to atmosphere. Two vapor extractors are used in this system.

The first vapor extractor is a motor-driven gas blower mounted on the oil reservoir. Its suction pipe is connected to the area above the oil level where vapors accumulate and are withdrawn by means of the blower. The volume of gas discharged by the blower can be varied by changing the opening of the butterfly valve installed in the discharge line. This is usually adjusted for continuous operation under normal conditions.

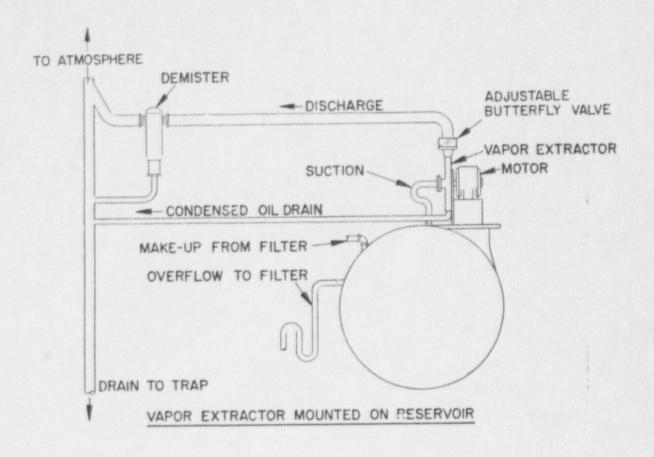
The discharge from the blower, which is mounted on the reservoir, is passed through a condensing type of apparatus, identified on the illustration as a "Demister." This is used to extract entrained liquid from the gas by a condensing principle, whereby the gas passes across a series of verticall installed, V-shaped, corrugated vanes of thin seel.

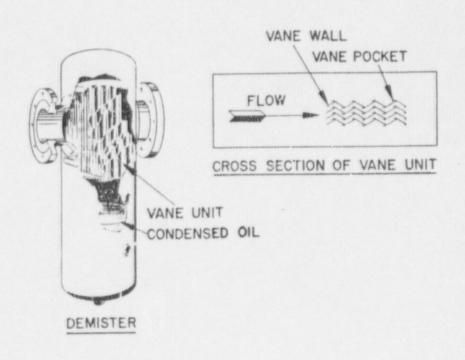
At each point where the individual vane changes the direction of the gas flow, a vane proceet is formed. As the flowing gas is subjected to multiple changes of direction in its path through the demister, a semi-turbulence develops by the rolling of the vapors against the vane walls. As the entrained droplets carried in the gas contact the vane walls, they impinge and adhere to them. This liquid then moves to the vane pockets and is drained by gravity to the liquid reservoir.

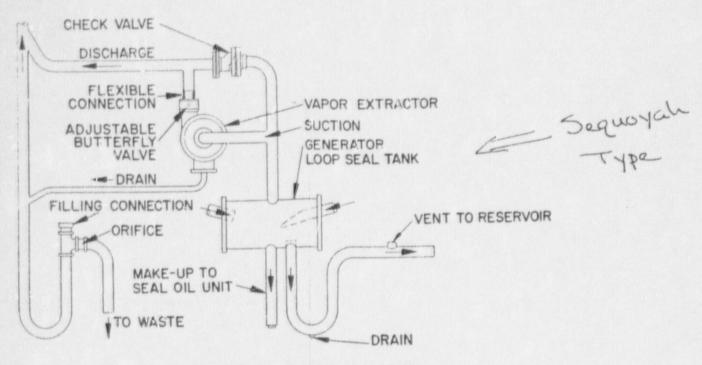
The other blower may be installed either above or below the loop seal tank as shown in the illustration. This installation is to remove any hydrogen which may be entrained in the lubricating oil leaving the generator bearing housing. In this system, a check valve is mounted in the discharge line to prevent any back-flow from the pump discharge. The check-valve in this line is also arranged to allow for natural draft when the vapor extractors are out of service.

A flexible connection is used between the customer's connection to the vapor extractors.

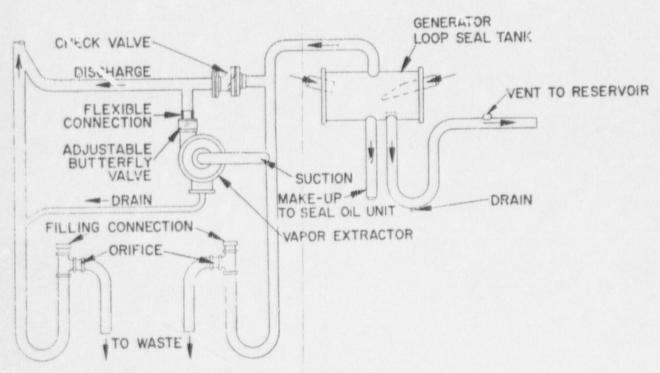
The vapor extractor must be in service when starting and operating the unit.







VAPOR EXTRACTOR LOCATION ABOVE LOOP SEAL TANK



VAPOR EXTRACTOR LOCATED BELOW LOOP SEAL TANK

OVERSIZE DOCUMENT PAGE PULLED

SEE APERTURE CARDS

NUMBER OF OVERSIZE PAGES FILMED ON APERTURE CARDS ____

APERTURE CARD/HARD COPY AVAILABLE FROM
RECORDS AND REPORTS MANAGEMENT BRANCH