

Item #39 "Water treatment polymer(s) used in water treatment water: Chemical composition; the manufacturer; the brand name; average quantities used over a unit of time (e.g., weekly/monthly); & MSDS sheet (if there is one)

Polymer name:	Betz Klaraid PC1190P
Manufacturer:	Betz Dearborn
Average quantity used:	35 gallons per month
Chemical composition:	Proprietary
MSDS:	following pages

* * * * *
* M S D S *
*
* Canadian Centre for Occupational Health and Safety *
* * * * * (October, 2001) *

*** IDENTIFICATION ***

MSDS RECORD NUMBER : 2741319
PRODUCT NAME(S) : KLARAID PC1190P
DATE OF MSDS : 1999-10-21
CURRENCY NOTE : This MSDS was provided to CCOHS in electronic form on 2001-06-12

*** MANUFACTURER INFORMATION ***

MANUFACTURER : BetzDearborn Canada, Inc
ADDRESS : 3451 Erindale Station Road
Mississauga Ontario
Canada L5C 2S9
EMERGENCY TELEPHONE NO. : 905-279-2222 (Office Hours)
800-963-5222 (HEALTH/ACCIDENT, Canada)
MANUFACTURER : Hercules Canada
ADDRESS : 3451 Erindale Station Road
Mississauga Ontario
Canada L5C 2S9

*** MATERIAL SAFETY DATA ***

BETZDEARBORN MATERIAL
SAFETY DATA SHEET

EFFECTIVE DATE: 21-OCT-1999
PRINTED DATE: 09-JUN-2001

1) CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : KLARAID PC1190P

PRODUCT APPLICATION AREA: POTABLE WATER TREATMENT CHEMICAL

COMPANY ADDRESS:

BetzDearborn Canada, Inc.*
3451 Erindale Station Road
Mississauga, Ontario L5C 2S9

*Hercules Canada, Inc. and BetzDearborn, Canada Inc. carrying on business as Hercules Canada

EMERGENCY TELEPHONE (HEALTH/ACCIDENT): 1-800-963-5222 (Canada)

2) COMPOSITION / INFORMATION ON INGREDIENTS

Information for specific product ingredients as required by the WHMIS Regulations is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation.

HAZARDOUS INGREDIENTS:

Product contains no hazardous ingredients reportable under WHMIS regulati

No component is considered to be a carcinogen by the U.S. National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC) or under WHMIS.

PAGE 1
PRODUCT NAME : KLARAID PC1190P
EFFECTIVE DATE: 21-OCT-1999

CONTINUED

3) HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

May cause slight irritation to the skin. May cause moderate irritation to the eyes. Vapors, gases, mists and/or aerosols may cause irritation to upper respiratory tract.

Odor: Amine; Appearance: Colorless To Yellow, Liquid

Fire fighters should wear positive pressure self-contained breathing apparatus(full face-piece type). Proper fire-extinguishing media: dry chemical/CO2/foam or water--Slippery condition; use sand/grit.

POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:

Primary route of exposure; May cause slight irritation to the skin.

ACUTE EYE EFFECTS:

May cause moderate irritation to the eyes.

ACUTE RESPIRATORY EFFECTS:

Vapors, gases, mists and/or aerosols may cause irritation to upper respiratory tract.

INGESTION EFFECTS:

May cause slight gastrointestinal irritation.

TARGET ORGANS:

No evidence of potential chronic effects.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

May cause redness or itching of skin.

PAGE 2
PRODUCT NAME : KLARAID PC1190P
EFFECTIVE DATE: 21-OCT-1999

CONTINUED

4) FIRST AID MEASURES

SKIN CONTACT:

Remove contaminated clothing. Wash exposed area with a large quantity of soap solution or water for 15 minutes.

EYE CONTACT:

Immediately flush eyes with water for 15 minutes. Immediately contact a physician for additional treatment.

INHALATION:

Remove victim from contaminated area to fresh air. Apply appropriate first aid treatment as necessary.

INGESTION:

Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact physician. Dilute contents of stomach using 3-4 glasses milk or water.

NOTES TO PHYSICIANS:

No special instructions

5) FIRE FIGHTING MEASURES

FIRE FIGHTING INSTRUCTIONS:

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

EXTINGUISHING MEDIA:

dry chemical/CO2/foam or water--Slippery condition; use sand/grit.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition (destructive fires) yields elemental oxides.

FLASH POINT:

> 200F > 93C P-M(CC)

6) ACCIDENTAL RELEASE MEASURES

PROTECTION AND SPILL CONTAINMENT:

Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container. Flush area with water. Wet area may be slippery. Spread sand/grit.

DISPOSAL INSTRUCTIONS:

The waste characteristics of the absorbed material, or any contaminate soil, should be determined in accordance with provincial regulations. Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement or discharged under provincial regulations. Incinerate or land dispose in an approved landfill.

7) HANDLING AND STORAGE

HANDLING:

Normal chemical handling.

STORAGE:

Keep containers closed when not in use. Store in cool ventilated location. Store away from oxidizers.

PAGE 3

CONTINUED

PRODUCT NAME : KLARAIID PC1190P

EFFECTIVE DATE: 21-OCT-1999

8) EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

Consult local authorities for acceptable provincial values.

Product contains no hazardous ingredients reportable under WHMIS regulati

ENGINEERING CONTROLS:

adequate ventilation

RESPIRATORY PROTECTION:

If air-purifying respirator use is appropriate, use a respirator with organic vapor cartridges.

SKIN PROTECTION:

neoprene gloves -- Wash off after each use. Replace as necessary.

EYE PROTECTION:

splash proof chemical goggles

9) PHYSICAL AND CHEMICAL PROPERTIES

Specific Grav. (70F,21C)	1.114	Vapor Pressure (mmHG)	- 18.0
Freeze Point (F)	10	Vapor Density (air=1)	< 1.00
Freeze Point (C)	-12		
Viscosity(cps 70F,21C)	66	% Solubility (water)	100.0

Odor		Amine	
Appearance		Colorless To Yellow	
Physical State		Liquid	
Flash Point	P-M(CC)	> 200F > 93C	
pH As Is (approx.)		7.1	
Evaporation Rate (Butyl Acetate=1)		< 1.00	

NA = not applicable ND = not determined

10) STABILITY AND REACTIVITY

STABILITY:

Stable under normal storage conditions.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

May react with strong oxidizers.

DECOMPOSITION PRODUCTS:

Thermal decomposition (destructive fires) yields elemental oxides.

BETZDEARBORN INTERNAL PUMPOUT/CLEANOUT CATEGORIES:

"A"

PAGE 4

CONTINUED

PRODUCT NAME : KLARAID PC1190P

EFFECTIVE DATE: 21-OCT-1999

11) TOXICOLOGICAL INFORMATION

Oral LD50 RABBIT:	1,200 mg/kg
Dermal LD50 RABBIT:	>2,000 mg/kg
Skin Irritation Score RABBIT:	0.08
Eye Irritation Score RABBIT:	28.66
NOTE - Max. score at 1hr; completely reversible by day 2	
90 Day Feed Study RAT:	NEGATIVE

12) ECOLOGICAL INFORMATION

AQUATIC TOXICOLOGY

Rainbow Trout 96 Hour Static Screen

100% Mortality: 1.5 mg/L
0% Mortality: .15 mg/L

Daphnia magna 48 Hour Static Renewal Bioassay

LC50: .165 mg/L
No Effect Level: .12 mg/L

Bluegill Sunfish 96 Hour Static Acute Bioassay

LC50: .69 mg/L
No Effect Level: .48 mg/L

Fathead Minnow 96 Hour Static Renewal Bioassay

Mortality was observed in lowest concentration tested. A no effect level cannot be defined.

LC50: .38 mg/L
5% Mortality: .12 mg/L

Mysid Shrimp 48 Hour Static Acute Bioassay

Mortality was observed in lowest concentration tested. A no effect level cannot be defined.

LC50: 6.96 mg/L
35% Mortality: 2 mg/L

Sheepshead Minnow 96 Hour Static Acute Bioassay

LC50: 67 mg/L
No Effect Level: 2 mg/L

BIODEGRADATION

COD (mg/gm):	348
TOC (mg/gm):	154
BOD-5 (mg/gm):	5
BOD-28 (mg/gm):	9

PAGE 5

CONTINUED

PRODUCT NAME : KLARAD PC1190P

EFFECTIVE DATE: 21-OCT-1999

13) DISPOSAL CONSIDERATIONS

Incinerate or bury in approved landfill. Please be advised that there may be additional local or provincial requirements relating to the disposal of waste. Consult provincial and local regulations regarding the proper disposal of this material.

14) TRANSPORT INFORMATION

Transportation of Dangerous Goods:
Proper Shipping Name: Not Regulated

15) REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

CEPA:

All components of this product comply with substance notification requirements under CEPA.

WHMIS CLASSIFICATION:

D2B

FOOD AND DRUG ADMINISTRATION:

The ingredients in this product are approved by FDA under 21 CFR 173.60.

PAGE 6

CONTINUED

PRODUCT NAME : KLARAID PC1190P

EFFECTIVE DATE: 21-OCT-1999

16) OTHER INFORMATION

NFPA/HMIS		CODE TRANSLATION
Health	1	Slight Hazard
Fire	1	Slight Hazard
Reactivity	0	Minimal Hazard
Special	NONE	No special Hazard
(1) Protective Equipment	B	Goggles,Gloves

(1) refer to section 8 of MSDS for additional protective equipment recommendations.

CHANGE LOG

	EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
MSDS status:	07-MAY-1997		** NEW **
	22-JUL-1997	12	07-MAY-1997
	15-SEP-1997	2,3,8,10,11,16	22-JUL-1997
	06-MAY-1998	;EDIT:9	15-SEP-1997
	16-JUN-1998	12	06-MAY-1998
	21-OCT-1999	12	16-JUN-1998

Prepared by the Regulatory Affairs Group, BetzDearborn Canada Inc.
Telephone: 1(905)279-2222 Date of preparation: 21-OCT-1999

PAGE 7
