

Material Safety Data Sheet



Revision Date 17-May-2005

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product code DL1432
Product name PROTECT
Recommended Use Water Treatment
Supplier Drummond American Corporation
600 Corporate Woods Parkway
Vernon Hills, IL 60061
(847) 913-9313
Emergency telephone number (888) 426-4851

2. HAZARDS IDENTIFICATION

Emergency Overview

Irritant.

Color Amber

Odor Slight

Form Liquid

Aggravated Medical Conditions No information available

Principal Routes of Exposure Eyes. Skin contact.

Potential health effects

Eyes Irritation. Burning sensation.
Skin Repeated or prolonged exposure may cause:. Skin Irritation.
Inhalation May cause irritation of the nose and throat. Irritating to respiratory system.
Ingestion Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Polymaleic Acid Polymer	26099-09-2	1-5
Diphosphonic Acid	2809-21-4	1-5
Potassium hydroxide	1310-58-3	3-7
Polyacrylic Acid Based Polymer	N/A	1-5

4. FIRST AID MEASURES

Eye contact	Flush with plenty of water for at least 15 minutes. Seek medical attention immediately.
Skin contact	Flush area with water for 15 minutes. Wash area thoroughly with soap and water. Seek medical attention if irritation persists.
Ingestion	Drink 1 or 2 glasses of water. Do not induce vomiting. Contact physician or poison control center immediately. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air. Provide oxygen if breathing is difficult. Administer artificial respiration if not breathing. Immediate medical attention is required.

5. FIRE FIGHTING MEASURES

Flash point °C	> 100
Flash point °F	> 212
Method	No information available

Autoignition temperature °C	No data available
Autoignition temperature °F	

Flammability Limits (% in Air)	
Upper	No data available
Lower	No data available

Suitable extinguishing media
Alcohol foam. Water fog. Carbon dioxide. Dry chemical.

Extinguishing media which must NOT be used for safety reasons
No information available.

Special Fire-Fighting Procedures
Firefighters should wear NIOSH/MSHA approved (or equivalent) self-contained pressure-demand breathing apparatus and full protective clothing.

Fire and Explosion Hazards
Do not release run-off from fire control methods to sewers or waterways. Material can splatter in temperatures above 212°F (100°C).

Sensitivity to shock
No information available.

Sensitivity to static discharge
No information available.

6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up
Do not allow product to reach sewage system, soil, surface or ground water, or any water course. Notify proper authorities if entry occurs. Dike or dam large spills. Soak up excess with absorbent material. Collect and contain for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling

Standard safety precautions should be observed when handling this material. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing spray mist. Do not inhale dusts.

Storage

Do not store near strong acids, bases, oxidizers, flammables or any other type of reactive material. Containers exposed to extreme heat may burst.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Potassium hydroxide	-	-	-	-
Polymaleic Acid Polymer	-	-	-	-
Diphosphonic Acid	-	-	-	-
Polyacrylic Acid Based Polymer	-	-	-	-

Ventilation and Environmental Controls

Use enough ventilation, local exhaust at the work area, or both, to keep below the TLV's in the worker's breathing zone and the general area.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Wash hands after handling the product. Remove and wash contaminated clothing before re-use.

Personal protective equipment**Respiratory protection**

Seek professional advise prior to respirator selection and use. If the exposure limits are exceeded, a NIOSH/MSHA approved respirator is recommended.

Hand protection

Protective gloves.

Eye protection

Safety glasses. Tightly fitting safety goggles.

Skin and body protection

Apron. Boots.

Other Protective Equipment

A safety shower and eye wash station should be available for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid	Color	Amber
Odor	Slight	Odor Threshold	No information available
pH	11	Specific Gravity	1.02
Vapor pressure	No data available	Vapor density	No data available
Evaporation Rate	1.00	VOC Content	0.10 %
Water solubility	No data available	Partition Coefficient (n-octanol/water)	No data available
Boiling point/range °F	212	Boiling point/range °C	100
Melting point/range °F	No data available	Melting point/range °C	No data available
Flash point °F	> 212	Flash point °C	> 100

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to avoid

Avoid extreme temperatures. Avoid contact with any reactive metals.

Materials to avoid

Strong acids. Alkalis. Oxidizers. Reactive metals.

Hazardous decomposition products

Carbon monoxide.

Polymerization

Will not occur.

Synergistic Products

No information available.

11. TOXICOLOGICAL INFORMATION

Component Information

Chemical Name	LD50 (oral, rat)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat)
Potassium hydroxide 1310-58-3	273 mg/kg	-	-
Polymaleic Acid Polymer 26099-09-2	-	-	-
Diphosphonic Acid 2809-21-4	-	-	-
Polyacrylic Acid Based Polymer N/A	-	-	-

Potential health effects

Sensitization

No information available.

Chronic toxicity

No information available.

Mutagenic effects

No information available.

Teratogenic effects

No information available

Reproductive toxicity

No information available

Target Organ Effects

No information available

Carcinogenic effects

See table below

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
Potassium hydroxide	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Polymaleic Acid Polymer	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Diphosphonic Acid	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Polyacrylic Acid Based Polymer	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Diphosphonic Acid

Water Flea Data*water flea EC50=527 mg/L (48 h)*

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

Triple rinse and dispose of in a sanitary landfill or by other procedures approved by state or local authorities. Discard in accordance with federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT

Not Regulated

TDG

Not Regulated

IMDG/IMO

Not Regulated

IATA

Not Regulated

MEX

Not Regulated

15. REGULATORY INFORMATION**State Regulations**

Chemical Name	New Jersey - RTK	Pennsylvania - RTK	California Prop. 65
Potassium hydroxide	Listed	Listed	Not Listed
Polymaleic Acid Polymer	Not Listed	Not Listed	Not Listed
Diphosphonic Acid	Not Listed	Not Listed	Not Listed
Polyacrylic Acid Based Polymer	Not Listed	Not Listed	Not Listed

International Inventories

Chemical Name	EINECS	DSL	NDSL	TSCA
Potassium hydroxide	X	X	-	X
Polymaleic Acid Polymer	-	X	-	X
Diphosphonic Acid	X	X	-	X
Polyacrylic Acid Based Polymer	-	-	-	-

CPRC

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all of the information required by the Controlled Product Regulations

16. OTHER INFORMATION

NFPA		HMIS	
Health	-	Health	1
Flammability	-	Flammability	0
Reactivity	-	Physical Hazard	0

Reason for revision No information available.

Prepared By T. Heidorn, MSDS Project Lead

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.