



SAFETY DATA SHEET

Safety Data Sheet according to regulation (EC) No 1907/2006 and amendments

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name: AEROFLOAT® 208 Promoter, Aqueous
Product Description: Mixture of dithiophosphate salts in water
Intended/Recommended Use: Mining chemical

Company: Cytec Industries Inc., Five Garret Mountain Plaza, Woodland Park, New Jersey 07424, USA. For Product Information call 1-800/652-6013. Outside the USA and Canada call +1-973/357-3193 or your local Cytec contact point. E-mail: custinfo@cytec.com

Local Contact Information: Cytec Industries Inc. Adenbury Way LL 139UZ Wrexham (UK) +44/1/97.866.5200

EMERGENCY PHONE (24 hours/day) - For emergency involving spill, leak, fire, exposure or accident call:

Asia Pacific Region:

Australia - +61-3-9663-2130 or 1800-033-111
China (PRC) - +86(0)532-8388-9090 (NRCC)
New Guinea - +61-3-9663-2130
New Zealand - +61-3-9663-2130 or 0800-734-607
All Others - +65-633-44-177 (CareChem24 Singapore)

Canada: 1-905-356-8310 (Cytec Welland, Canada plant)

Europe/Africa/Middle East: +44-(0)208-762-8322 (CareChem24 UK)

Latin America:

Brazil - 0800 0111 767 (SOS Cotec)
Chile - +56-2-247-3600 (CITUC QUIMICO)
All Others - +52-376-73 74122 (Cytec Atequiza, Mexico plant)

USA: +1-703-527-3887 or 1-800-424-9300 (CHEMTREC)

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2. HAZARDS IDENTIFICATION

HUMAN AND ENVIRONMENTAL HAZARDS

Causes burns.
Risk of serious damage to eyes.
Contact with acids liberates very toxic gas.

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

Component / CAS No.	% (w/w)	EC-No	Classification
Sodium di sec butyl-dithiophosphate 33619-92-0	~ 25.0	251-598-7	Xi; R41 C; R34 R32
Sodium hydroxide 1310-73-2	~ 0.5	215-185-5	C;R35
Diethyldithiophosphoric acid, sodium salt, hydrolyzed 3338-24-7	~ 25.0	222-079-2	Xi; R41 C; R34 R32

See Section 16 for Ingredient Risk Phrase Text

4. FIRST AID MEASURES

Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Skin Contact:

Remove contaminated clothing and shoes without delay. Wear impermeable gloves. Wash immediately with plenty of water and soap. Pay particular attention to skin crevices, nail folds, etc. Do not reuse contaminated clothing without laundering. Do not reuse contaminated leatherware. Obtain medical attention.

Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes. Obtain medical attention immediately.

Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Apply artificial respiration if patient is not breathing. Obtain medical attention immediately.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Use water spray or fog, carbon dioxide or dry chemical.

Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

Special Hazards:

Sulphur dioxide or hydrogen sulphide may be formed under fire conditions. Do not flush to sewer which may contain acid. This could result in generation of toxic and explosive hydrogen sulphide gas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Where exposure level is known, wear approved respirator suitable for level of exposure. Where exposure level is not known, wear approved, positive pressure, self-contained respirator. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

Methods For Cleaning Up:

Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

7. HANDLING AND STORAGE

Handling

Precautionary Measures: Do not get in eyes, on skin or on clothing. Wash thoroughly after handling.

Special Handling Statements: Large quantities of undiluted product should not be mixed with acids, since evolution of toxic and explosive hydrogen sulphide gas could result. In particular, precautions must be taken to avoid the accidental discharge of large volumes of the product in acid storage tanks or any tank or containment containing acidic materials. This precaution does not, of course, apply to addition of this reagent to flotation pulps in amounts customarily used in flotation, where the reagent amounts are small and instantly diluted to concentrations well below the solubility limits.

Storage

Keep from freezing.

Storage Temperature: Room temperature

VCI Storage Class: 8 B

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures:

Utilize a closed system process where feasible.

Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

Respiratory Protection:

Where exposures are below the established exposure limit, no respiratory protection is required.

Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

Eye protection:

Prevent eye and skin contact.

Provide eye wash fountain and safety shower in close proximity to points of potential exposure.

Wear eye/face protection such as chemical splash proof goggles or face shield.

Skin Protection:

Prevent contamination of skin or clothing when removing protective equipment.

Wear impermeable gloves and suitable protective clothing.

Additional Advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use.

Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

Exposure limit(s)

1310-73-2 Sodium hydroxide

United Kingdom: WEL (Workplace Exposure Limits)	2 mg/m ³ (STEL)
Europe ILV (Indicative Limit Values):	Not established
Other Value:	Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	yellow to amber
Appearance:	liquid
Odor:	noticeable
Boiling Point:	Not available
Melting Point:	-21 °C (freezing point)

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure:	Similar to water
Specific Gravity/Density:	1.1175 @ 25 °C
Vapour density:	Similar to water
Percent Volatile (% by wt.):	~50(water)
Solids Content:	Not available
pH:	11.0(minimum)
Saturation In Air (% By Vol.):	Similar to water
Evaporation Rate:	Similar to water
Solubility In Water:	Complete
Acid Number (mg KOH/g):	Not available
Hydroxyl Value (mg KOH/g):	Not available
Volatile Organic Content (1999/13/EC):	Not applicable
Flash point:	>93 °C closed cup
Flammable Limits (% By Vol):	Not available
Autoignition temperature:	Not available
Decomposition Temperature:	Not available
Partition coefficient (n-octanol/water):	Not available
Fat Solubility (Solvent-Oil):	Not available
Viscosity (Kinematic):	Not available
Viscosity (Dynamic):	Not available

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions To Avoid:	None known
Polymerization:	Will not occur
Conditions To Avoid:	None known
Materials to avoid:	This product contains a neutralized dithioacid. Avoid contact with strong oxidizing agents and mineral acids.
Hazardous Decomposition Products:	Carbon monoxide (CO) Carbon dioxide hydrogen sulfide (H ₂ S) oxides of sulfur (includes sulfur di and tri oxides) oxides of phosphorus

11. TOXICOLOGICAL INFORMATION

Potential health effects

Causes burns.

Risk of serious damage to eyes.

PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA

oral	rat	Acute LD50	8460 mg/kg
dermal	rabbit	Acute LD50	5610 mg/kg
inhalation	rat	Acute LC50 4 hr	>20 mg/l

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	dermal	Corrosive
Acute Irritation	eye	Causes serious damage

ALLERGIC SENSITIZATION

Sensitization	dermal	Not sensitizing
Sensitization	inhalation	Not sensitizing

GENOTOXICITY**Assays for Gene Mutations**

Ames Salmonella Assay	No data
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HAZARDOUS INGREDIENT TOXICITY DATA**ACUTE TOXICITY DATA**

Sodium hydroxide

Oral rat Acute LD50 (Actual) 104 - 340 mg/kg

dermal rabbit Acute LD50 (Actual) 1250 mg/kg

Diethyldithiophosphoric acid, sodium salt, hydrolyzed

oral (gavage) rat Acute LD50 (Actual) 18000 mg/kg

LOCAL EFFECTS ON SKIN AND EYE

Sodium hydroxide

Acute Dermal Irritation Corrosive

Acute Eye Irritation Causes serious damage

Diethyldithiophosphoric acid, sodium salt, hydrolyzed

Acute Eye Irritation Causes serious damage

Acute Dermal Irritation Corrosive

Sodium di sec butyl-dithiophosphate

Acute Dermal Irritation rabbit Corrosive

Acute Eye Irritation rabbit Causes serious damage

12. ECOLOGICAL INFORMATION

This material is not classified as dangerous for the environment.
Predicted to be not readily biodegradable.

FISH TEST RESULTS**Test:** Acute toxicity, freshwater (OECD 203)**Duration:** 96 hr.**Species:** Rainbow Trout (*Oncorhynchus mykiss*)

>125 mg/l LC50

INVERTEBRATE TEST RESULTS**Test:** Acute Immobilization (OECD 202)

12. ECOLOGICAL INFORMATION

Duration: 48 hr

Species: Water Flea (*Daphnia magna*)
>100 mg/l EC50

13. DISPOSAL CONSIDERATIONS

The Company encourages the recycle, recovery and reuse of materials, where permitted. If disposal is necessary, The Company recommends that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

ADR/RID

Dangerous Goods? X

Proper Shipping Name: Caustic alkali liquid, n.o.s.

Class: 8

UN Number: UN1719

Packing Group: II

Transport Label Required: Corrosive

Technical Name (N.O.S.): Contains dithiophosphate salt

Tunnel restriction code: E

IMO

Dangerous Goods? X

Proper Shipping Name: Caustic alkali liquid, n.o.s.

Hazard Class: 8

UN Number: UN1719

Packing Group: II

Transport Label Required: Corrosive

Technical Name (N.O.S.): dithiophosphate salt

ICAO / IATA

Dangerous Goods? X

Proper Shipping Name: Caustic alkali liquid, n.o.s.

Hazard Class: 8

Packing Group: II

UN Number: UN1719

Transport Label Required: Corrosive

Packing Instructions/Maximum Net Quantity Per Package:

Passenger Aircraft: 809; 1 L

Cargo Aircraft: 813; 30 L

Technical Name (N.O.S.): Contains dithiophosphate salt

15. REGULATORY INFORMATION

15. REGULATORY INFORMATION

LABELING ACCORDING TO EC DIRECTIVES

Symbol(s): C - Corrosive

Risk Phrases:

R34 - Causes burns.

R41 - Risk of serious damage to eyes.

R32 - Contact with acids liberates very toxic gas.

Safety Phrases:

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S50A - Do not mix with acids or aqueous solutions of acids since evolution of poisonous and flammable hydrogen sulfide gas could result. This precaution does not apply to addition of this material to flotation pulps in the amounts normally used in flotation.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

HAZARDOUS INGREDIENTS

Component / CAS No.

1310-73-2 Sodium hydroxide

3338-24-7 Diethyldithiophosphoric acid, sodium salt, hydrolyzed

33619-92-0 Sodium di sec butyl-dithiophosphate

Water Endangering Class (Germany): 1 Classification on the basis of Annex 4.

Inventory Information

United States (USA):

All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada:

All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

Japan: All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese inventory.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

16. OTHER INFORMATION

Reasons for Issue: Revised Section 7
Revised Section 11

Component Risk Phrases

Sodium di sec butyl-dithiophosphate

R34 - Causes burns.

R41 - Risk of serious damage to eyes.

R32 - Contact with acids liberates very toxic gas.

Sodium hydroxide

R35 - Causes severe burns.

Diethyldithiophosphoric acid, sodium salt, hydrolyzed

R32 - Contact with acids liberates very toxic gas.

R41 - Risk of serious damage to eyes.

R34 - Causes burns.

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