

Safety data sheet

Myacide* AS Technical

Revision date : 2007/07/09
Version: 1.1

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(30171567/MDS_GEN_US/EN)

1. Substance/preparation and company identification

Company

BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

Molecular formula:

C₃H₆BRNO₄

Synonyms:

2-BROMO-2-NITRO-1,3-PROPANEDIOL

2. Composition/information on ingredients

CAS Number

52-51-7

Content (W/W)

> 99.0 %

Chemical name

bronopol

3. Hazard identification

Emergency overview

WARNING: HARMFUL IF SWALLOWED.

Causes eye irritation.

CAUSES SKIN IRRITATION.

MAY CAUSE RESPIRATORY TRACT IRRITATION.

Use with local exhaust ventilation.

Wear NIOSH-certified chemical goggles.

Wear protective clothing.

Wear chemical resistant protective gloves.

Wear a NIOSH-certified (or equivalent) particulate respirator.

Eye wash fountains and safety showers must be easily accessible.

Potential health effects

Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Sensitization:

After continuous contact with the skin, sensitization cannot be excluded.

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4. First-aid measures

General advice:

Immediately remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

If on skin:

Wash affected areas thoroughly with soap and water. Seek medical attention.

If in eyes:

Seek medical attention. Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-fighting measures

Autoignition: No data available.

Suitable extinguishing media:

dry extinguishing media, foam

Unsuitable extinguishing media for safety reasons:

carbon dioxide

Hazards during fire-fighting:

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

NFPA Hazard codes:

Health : 2 Fire: 1 Reactivity: 2 Special:

6. Accidental release measures

Personal precautions:

Avoid dust formation. Use personal protective clothing.

Environmental precautions:

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

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Cleanup:

Avoid raising dust.

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Contain with dust binding material and dispose of.

7. Handling and storage

Handling

General advice:

Breathing must be protected when large quantities are decanted without local exhaust ventilation.

Protection against fire and explosion:

Avoid dust formation. Take precautionary measures against static discharges. Sources of ignition should be kept well clear.

Storage

General advice:

Keep container tightly closed and dry; store in a cool place.

Storage incompatibility:

General: Segregate from foods and animal feeds.

Temperature tolerance

Protect from temperatures above: 90 °C

8. Exposure controls and personal protection

Advice on system design:

Provide local exhaust ventilation to control dust.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Impermeable protective clothing

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin and eyes. Take off immediately all contaminated clothing.

9. Physical and chemical properties

| | | |
|----------------|-----------------------|----------------------|
| Form: | crystalline | |
| Odour: | product specific | |
| Colour: | off-white | |
| pH value: | 4.5 - 7 | (10 g/l, 20 °C) |
| Melting point: | 99.7 °C | (OECD Guideline 102) |
| Density: | 1.1 g/cm ³ | (20 °C) |

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| | | |
|---|-----------------------------|----------|
| Partitioning coefficient n-octanol/water (log Pow): | 0.18 | |
| Solubility in water: | 280 g/l | (23 °C) |
| Solubility (qualitative): | soluble | |
| | solvent(s): polar solvents, | |

10. Stability and reactivity

Conditions to avoid:

Temperature: > 90 degrees Celsius

Substances to avoid:

oxidizing agents
Sodium Hydroxide, bases
aluminium, metal

Hazardous reactions:

No hazardous reactions when stored and handled according to instructions.
The product is chemically stable.

Decomposition products:

Hazardous decomposition products: hydrogen bromide, nitrogen oxides

Thermal decomposition:

Stable at ambient temperature.

90 °C

Possible thermal decomposition products:
nitrogen oxides (NO)_x, hydrogen bromide

> 140 °C

May decompose violently.

Corrosion to metals:

No corrosive effect on metal.

11. Toxicological information

Acute toxicity

Oral:

LD50/rat: 254 mg/kg

Dermal:

LD50/rat/male: approx. 1,600 mg/kg

Skin irritation:

rabbit: Irritant. (OECD Guideline 404)

Eye irritation :

rat: Risk of serious damage to eyes.

Chronic toxicity

Carcinogenicity:

In the majority of the short term assays the substance caused no carcinogenic effects.

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Reproductive toxicity:

The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity/teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Experiences in humans:

If this substance comes into close contact with the skin of hypersensitive persons, sensitization might occur.

Other information:

Toxicological data refers to the pure substance

12. Ecological information

Environmental fate and transport

Biodegradation:

| | |
|------------------------|--|
| Test method: | OECD 302B; ISO 9888; 88/302/EEC,part C |
| Method of analysis: | DOC reduction |
| Degree of elimination: | 50 % (45 d) |
| Evaluation: | Moderately/partially eliminated from water. The product can be degraded abiotically, e.g. chemical or photolytic processes. |

Adsorbable organically-bound halogen (AOX):

The product contains according to the formulation, organically bound halogen. It can increase the AOX-value in the water purification plants overflow or if it reaches waters.

Environmental toxicity

Acute and prolonged toxicity to fish:

Rainbow trout/LC50 (96 h): 41.2 mg/l

Acute toxicity to aquatic invertebrates:

EC50 (48 h): 1.4 mg/l

Toxicity to aquatic plants:

EC50 (72 h): 0.4 - 2.8 mg/l

Toxicity to microorganisms:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport information

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Land transport

USDOT

Hazard class: 4.1
Packing group: III
ID number: UN 3241
Hazard label: 4.1
Proper shipping name: 2-BROMO-2-NITROPROPANE-1,3-DIOL

Sea transport

IMDG

Hazard class: 4.1
Packing group: III
ID number: UN 3241
Hazard label: 4.1
Marine pollutant: NO
Proper shipping name: 2-BROMO-2-NITROPROPANE-1,3-DIOL

Air transport

IATA/ICAO

Hazard class: 4.1
Packing group: III
ID number: UN 3241
Hazard label: 4.1
Proper shipping name: 2-BROMO-2-NITROPROPANE-1,3-DIOL

15. Regulatory information

Federal Regulations

Registration status:
TSCA, US released / exempt

OSHA hazard category: Acute target organ effects reported, Skin and/or eye irritant, Toxic - oral

SARA hazard categories (EPCRA 311/312): Acute, Chronic

16. Other information

HMIS III rating

Health: 2 Flammability: 1 Physical hazard: 2

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

Local contact information

prod_reg@basf.com

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