

Safety data sheet

Myacide* GA 50

Revision date : 2006/05/11
Version: 2.0

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(30054099/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: CHO(CH₂)₃CHO
Chemical family: dialdehydes
Synonyms: Glutaraldehyde

2. Composition/information on ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
111-30-8	50.0 %	glutaral
7732-18-5	50.0 %	Water

3. Hazard identification

Emergency overview

DANGER: SENSITIZER. HARMFUL IF INHALED. CAUSES SKIN BURNS. SEVERELY IRRITATING TO EYES, SKIN, RESPIRATORY TRACT.
Use with local exhaust ventilation.
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.
Wear NIOSH-certified chemical goggles.
Wear protective clothing.
Eye wash fountains and safety showers must be easily accessible.
Wear full face shield if splashing hazard exists.

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.

Acute toxicity:

Harmful by inhalation. Harmful if swallowed.

Irritation:

Corrosive to the skin. Severely irritating to the eyes.

Information on: Glutaraldehyde

Eye and skin contact with glutaraldehyde causes severe irritation; burns and permanent injury may result. Prolonged or repeated skin contact with glutaraldehyde may result in dermatitis.

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Sensitization:

May cause sensitization by inhalation and skin contact.

Repeated dose toxicity:

Information on: Glutaraldehyde

Overexposures have been known to produce liver damage in animal studies. Fetotoxicity and embryotoxicity in the presence of maternal toxicity has been shown to occur in rabbits at a high dose of 45 mg/kg.

Medical conditions aggravated by overexposure:

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.

See MSDS section 11 - Toxicological information.

Potential environmental effects

Aquatic toxicity:

Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible.

4. First-aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:

Wash affected areas with water while removing contaminated clothing. Seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

5. Fire-fighting measures

Flash point:	> 100 °C	(DIN 51758)
Autoignition:	approx. 225 °C	(DIN 51794)
Lower explosion limit:	18.8 %(V)	(56.0 °C, 188.5 mbar)
Upper explosion limit:	46.4 %(V)	(75.0 °C, 459 mbar)

Suitable extinguishing media:

water, dry extinguishing media, carbon dioxide, foam

Hazards during fire-fighting:

No particular hazards known.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

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NFPA Hazard codes:

Health : 3 Fire: 1 Reactivity: 0 Special:

6. Accidental release measures

Personal precautions:

Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

Cleanup:

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and storage

Handling**General advice:**

Ensure thorough ventilation of stores and work areas. Avoid aerosol formation.

Protection against fire and explosion:

Avoid all sources of ignition: heat, sparks, open flame.

Storage**General advice:**

Keep container tightly closed and dry; store in a cool place. Store protected against freezing.

Storage stability:

Storage temperature: ≤ 25 °C

Storage duration: 12 Months

8. Exposure controls and personal protection

Components with workplace control parameters

glutaral

ACGIH CLV 0.05 ppm ;

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment**Respiratory protection:**

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

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Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to DIN-EN 465).

General safety and hygiene measures:

Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to prevent contact. Employees should shower at the end of the shift. Wash soiled clothing immediately.

9. Physical and chemical properties

Form:	liquid	
Odour:	pungent odour	
Colour:	colourless to yellow yellow	
pH value:	3.7	(100 g/l, 20 °C)
Freezing point:	approx. -20 °C	(1 ATM)
Boiling point:	> 100 °C	(1 ATM)
Vapour pressure:	20 mbar	(33.7 °C)
<i>Information on: water</i>		
Vapour pressure:	23 mbar	(20 °C)

Density:	1.13 g/cm ³	(20 °C) (DIN 51757)
Partitioning coefficient n-octanol/water (log Pow):	-0.36	(approx. 23 °C) (OECD Guideline 107)
Viscosity, dynamic:	20 mPa.s	(50 °C) (DIN 53015)
Solubility in water:		(approx. 20 °C) miscible

10. Stability and reactivity

Conditions to avoid:

> 50 degrees Celsius

Substances to avoid:

acids, bases

Hazardous reactions:

The product is chemically stable.

Decomposition products:

carbon monoxide, carbon dioxide

Corrosion to metals:

Corrosive effect on metals.

11. Toxicological information

Acute toxicity

Oral:

LD50/rat:

Moderately toxic.

LD50/rat: 320 mg/kg

Moderately toxic.

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Inhalation:

LC50/rat: > 0.28 - < 0.39 mg/l / 4 h

An aerosol was tested.

Inhalation-risk test (IRT): No mortality within 60 minutes as shown in animal studies. Deaths possible with prolonged exposure.

Dermal:

LD50/rabbit:

Moderate to low toxicity.

LD50/rabbit:

Slightly toxic to practically nontoxic.

LD50/rat:

Slightly toxic.

Skin irritation:

rabbit: Corrosive. (BASF-Test)

Eye irritation :

rabbit: Irritating.

Sensitization:

Guinea pig maximization test/: Caused sensitization in animal studies.

Chronic toxicity

Genetic toxicity:

The substance was mutagenic in various test systems with bacterias and cell cultures; however, these results could not be confirmed in tests with mammals.

Reproductive toxicity:

Animal studies gave no indication of a fertility impairing effect at doses which were not toxic to the parental animals.

Developmental toxicity/teratogenicity:

Teratogenic.

Effects observed at maternally toxic doses.

No developmental effects.

No teratogenic effects.

12. Ecological information

Environmental fate and transport

Biodegradation:

Test method: OECD Guideline 302 B

Method of analysis: DOC reduction

Degree of elimination: > 70 %

Test method: OECD 301 A (old version)

Method of analysis: DOC reduction

Degree of elimination: 90 - 100 % (28 d)

Evaluation: Easily eliminated from water.

Readily biodegradable (according to OECD criteria).

Bioaccumulation:

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Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Chemical oxygen demand (COD):

1,385 mg/g

Biochemical oxygen demand (BOD):

Incubation period 5.0 d: 235 mg/g

Ratio BOD/COD:

Biochemical Oxygen Demand after 5 days: 63 %

Ratio BOD/COD:

Biochemical Oxygen Demand after 15 days: 78 %

Ratio BOD/COD:

Biochemical Oxygen Demand after 20 days: 86 %

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Environmental toxicity

Acute and prolonged toxicity to fish:

static

sunfish, bluegill/LC50 (96 h): = 13 mg/l (50% aq.)

Slightly toxic.

static

marine minnow, sheepshead/LC50 (96 h): = 39 mg/l (50% aq.)

Slightly toxic.

static

Rainbow trout/LC50 (96 h): = 10 mg/l (50% aq.)

Slightly toxic.

LC50 (96 h): 0.84 mg/l

Moderately toxic.

Acute toxicity to aquatic invertebrates:

static

Daphnia sp./LC50 (48 h): 14 mg/l (50% aq.)

Slightly toxic.

static

Mysid shrimp/LC50 (48 h): 22 mg/l (50% aq.)

Slightly toxic.

static

Daphnia sp./LC50 (48 h): 17

Slightly toxic.

static

Daphnia sp./LC50 (48 h): 12 mg/l (50% aq.)

Slightly toxic.

static

Daphnia sp./EC50 (24 h): 33 mg/l (50% aq.)

Toxicity to aquatic plants:

algae/EC50 (72 h): 0.75 mg/l

Highly toxic.

Toxicity to microorganisms:

DIN 38412 Part 8 bacterium/EC50 (17 h): 13.3 mg/l

Other terrestrial non-mammals:

LD50: 0.73 ml/kg (50%aq.)

Moderately toxic.

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13. Disposal considerations

Waste disposal of substance:

Do not discharge substance/product into sewer system.
Incinerate or dispose of in a RCRA-licensed facility.

Container disposal:

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

RCRA: D002

14. Transport information

Land transport

USDOT

Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (contains GLUTARALDEHYDE)

Hazard class: 8

ID-number: UN 3265

Packing group: III

Sea transport

IMDG

Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (contains GLUTARALDEHYDE)

Hazard class: 8

ID-number: UN 3265

Packing group: III

Marine pollutant: YES

Air transport

IATA/ICAO

Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. contains (GLUTARALDEHYDE)

Hazard class: 8

ID-number: UN 3265

Packing group: III

15. Regulatory information

Federal Regulations

Registration status:

TSCA, US released / listed

OSHA hazard category: Acute target organ effects reported, Toxic - oral, Highly toxic - inhalation

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<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
5,000 LBS	67-56-1	Methanol
100 LBS	64-17-5	Ethanol

SARA hazard categories (EPCRA 311/312): Acute

State regulations

State RTK

<u>CAS Number</u>	<u>Chemical name</u>	<u>State RTK</u>
111-30-8	glutaral	MA, NJ, PA

16. Other information

HMIS III rating

Health: 3⁺ Flammability: 1 Physical hazard: 0

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.

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