

Safety Data Sheet

Myacide® GDA Technical

Revision date : 2011/10/10
Version: 5.0

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(30042523/SDS_GEN_US/EN)

1. Product 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. Hazards Identification

Emergency overview

CAUTION:

Toxic by inhalation, in contact with skin and if swallowed.
Causes burns.
May cause sensitization by inhalation.
Wear protective clothing.
Wear full face shield if splashing hazard exists.
Avoid inhalation of mists/vapours.
Wear a NIOSH-certified (or equivalent) acid gas/organic vapour respirator.
Ensure adequate ventilation.

State of matter: liquid
Colour: colourless to yellow
Colour: yellow
Odour: pungent odour

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:

Of high toxicity after short-term inhalation. Of high toxicity after single ingestion. Of low toxicity after short-term skin contact.

Irritation / corrosion:

Corrosive! Damages skin and eyes.

Assessment other acute effects:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

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Sensitization:

Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract.

Chronic toxicity:

Carcinogenicity: In long-term animal studies in which the substance was given in the drinking water in high concentrations, a carcinogenic effect was not observed. In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed.

Repeated dose toxicity: After repeated exposure the prominent effect is local irritation. The substance may cause damage to the upper respiratory tract even after repeated inhalation, as shown in animal studies.

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

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

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

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.

Signs and symptoms of overexposure:

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further symptoms are possible

Potential environmental effects

Aquatic toxicity:

The product has not been tested. The data have been deduced from values for a preparation or mixture with a lower substance concentration.

3. 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

4. First-Aid Measures

General advice:

Immediately remove contaminated clothing. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). First aid personnel should pay attention to their own safety.

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.

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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.

Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Pulmonary odema prophylaxis. Medical monitoring for at least 24 hours.

5. Fire-Fighting Measures

Flash point:	95 °C	(50 %(m)) (closed cup) No flash point - Measurement made up to the indicated temperature, pilot light extinguishes.
Autoignition:	395 °C	(50 %(m)) (Directive 92/69/EEC, A.15)
Lower explosion limit:	1.5 %(V)	Product not examined: Value is calculated from the data of the components.
Upper explosion limit:	50 %(V)	Product not examined: Value is calculated from the data of the components.
Flammability:	does not ignite	
Self-ignition temperature:		(other) not self-igniting

Suitable extinguishing media:

water spray, dry powder, 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:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Impact Sensitivity:

Impact Weight:	10 kg
Height of Fall:	0.4 m
Method:	Explosive properties

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.

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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

From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced.

8. Exposure Controls and Personal Protection

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.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

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 5.9	(50 %(m), 23 °C) (0.5 %(m), 23 °C)
Melting point:	approx. -33 °C	(Directive 92/69/EEC, A.1)
Boiling point:	101.5 °C	(987.1 hPa)
Vapour pressure:	104.68 hPa	(50 °C)
Density:	1.13 g/cm ³	(20 °C) (DIN 51757)
Relative density:	1.13	(20 °C) (pycnometer)
Partitioning coefficient n-octanol/water (log Pow):	-0.36	(23 °C) (Directive 92/69/EEC, A.8)
Viscosity, dynamic:	20 mPa.s	(50 °C) (DIN 53015)
Viscosity, kinematic:	12.75 mm ² /s	(25 °C)
Solubility in water:		(20.2 °C) miscible
Molar mass:	100.12 g/mol	

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10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. See MSDS section 7 - Handling and storage.

Substances to avoid:

acids, bases

Hazardous reactions:

The product is chemically stable.

Decomposition products:

Thermal decomposition products: carbon monoxide, carbon dioxide

Thermal decomposition:

110 °C

First exothermic reaction at indicated temperature.

Corrosion to metals:

Corrosive effect on metals.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat (male/female)

Value: approx. 158 mg/kg (OECD Guideline 401)

Inhalation:

Type of value: LC50

Species: rat (male/female)

Value: 0.48 mg/l (OECD Guideline 403)

Exposure time: 4 h

An aerosol was tested.

Dermal:

Type of value: LD50

Species: rat (male/female)

Value: > 2,000 mg/kg (OECD Guideline 402)

The data refer to a diluted watery solution of the substance.

Irritation / corrosion

Skin:

Species: rabbit

Result: Corrosive.

Method: OECD Guideline 404

The data refer to a diluted watery solution of the substance.

Eye:

Species: rabbit

Result: Risk of serious damage to eyes.

Method: Draize test

The data refer to a diluted watery solution of the substance.

Sensitization:

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Open epicutaneous test (OET)
Species: guinea pig
Result: sensitizing
The data refer to a diluted watery solution of the substance.

Other Information:

Toxicological data applies only to the water free substance.

12. Ecological Information

Fish

Acute:
Fish test acute static
Cyprinodon variegatus/LC50 (96 h): 39 mg/l
The details of the toxic effect relate to the nominal concentration.
Fish test acute static
Lepomis macrochirus/LC50 (96 h): 9.4 mg/l
The details of the toxic effect relate to the nominal concentration.

Chronic:
See user defined text. Flow through.
Oncorhynchus mykiss /NOEC (97 d): 1.6 mg/l
The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates

Acute:
Daphnia test acute static
Daphnia magna/EC50 (48 h): 5.75 mg/l
The details of the toxic effect relate to the nominal concentration.

other Flow through.
mussel/EC50 (96 h): 0.75 mg/l
The statement of the toxic effect relates to the analytically determined concentration.

OPP 72-3 (EPA-Guideline) Flow through.
Mysid shrimp/LC50 (96 h): 5.5 mg/l
The statement of the toxic effect relates to the analytically determined concentration.

Chronic:
OECD Guideline 202, part 2 semistatic Daphnia magna (NOEC) 21 d 2.5 mg/l
The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants

Toxicity to aquatic plants:
OECD Guideline 201 static
green algae/EC50 (72 h): 0.6 mg/l
The statement of the toxic effect relates to the analytically determined concentration.

ISO/DIS 10253 Skeletonema costatum/EC50 (72 h): 0.92 mg/l
The details of the toxic effect relate to the nominal concentration.

Microorganisms

Toxicity to microorganisms:
OECD Guideline 209 aerobic
activated sludge, domestic/EC20 (30 min): approx. 15 mg/l
The details of the toxic effect relate to the nominal concentration.

Non-Mammals

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Other terrestrial non-mammals:
LD50: 0.73 ml/kg (50%aq.)
Moderately toxic.

Plant

Toxicity to terrestrial plants:
OECD Guideline 208 vetch/EC20 (19 d): > 450 mg/kg

Degradability / Persistence

Biological / Abiological Degradation

Test method: OECD 301 A (new version) (aerobic), activated sludge, domestic
Method of analysis: DOC reduction
Degree of elimination: 90 - 100 % (28 d)
Evaluation: Readily biodegradable (according to OECD criteria).
Readily biodegradable (according to OECD criteria).

Hydrolysis

Test method: Directive 92/69/EEC, C.7 (abiotic)
pH7
Half-life: > 1 a (50 °C)
In contact with water the substance will hydrolyse slowly.

Bioaccumulation

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

Environmental mobility:

Transport between environmental compartments:

other adsorption/water - soil
log KOC: 0.76

13. Disposal considerations

Waste disposal of substance:

Incinerate in suitable incineration plant, observing local authority regulations.
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

Hazard class: 8
Packing group: II
ID number: UN 2922
Hazard label: 8, 6.1, EHSM
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains GLUTARALDEHYDE)

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Sea transport

IMDG

Hazard class: 8
Packing group: II
ID number: UN 2922
Hazard label: 8, 6.1, EHS
Marine pollutant: YES
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains GLUTARALDEHYDE)

Air transport

IATA/ICAO

Hazard class: 8
Packing group: II
ID number: UN 2922
Hazard label: 8, 6.1
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains GLUTARALDEHYDE)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

Biocide TSCA, US released / exempt

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

EPCRA 311/312 (Hazard categories): Acute;

State regulations

State RTK
MA, NJ, PA

CAS Number
111-30-8

Chemical name
glutaral

16. Other Information

NFPA Hazard codes:

Health : 3 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 3 Flammability: 0 Physical hazard: 0

NFPA and HMIS use 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 extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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