

Safety data sheet

Page: 1/12

BASF Safety data sheet
Date / Revised: 07.10.2013
Product: **Protectol® GA 24**

Version: 2.0

(30059034/SDS_GEN_AU/EN)

Date of print 09.10.2013

1. Substance/preparation and company identification

Protectol® GA 24

Use: biocide

Manufacturer/supplier:

BASF Australia Limited (ABN 62 008 437 867)
Level 12, 28 Freshwater Place Southbank
Victoria 3006, AUSTRALIA
Telephone: +61 3 8855-6600
Telefax number: +61 3 8855-6511

Emergency information:

BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]
BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

HAZARDOUS SUBSTANCE, DANGEROUS GOOD

Causes burns.

Harmful by inhalation and if swallowed.

May cause sensitization by inhalation and skin contact.

Wear suitable protective clothing and gloves.

Do not breathe spray.

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

After contact with skin, wash immediately with plenty of water.

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

If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

3. Composition/information on ingredients

Chemical nature

dialdehydes, glutaral (Content (W/W): 24 %), water (Content (W/W): 76 %)

Hazardous ingredients

glutaral

Content (W/W): $\geq 20\%$ - $< 25\%$

CAS Number: 111-30-8

Hazard symbol(s): T, N

R-phrases: 23/25, 34, 42/43, 50

The wording of the hazard symbols and R-phrases is specified in section 16 if dangerous ingredients are mentioned.

4. First-Aid Measures

General advice:

Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

On skin contact:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Note to physician:

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

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

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, dry powder, carbon dioxide

Specific hazards:

nitrogen oxides, carbon oxides

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

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

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

6. Accidental Release Measures

Personal precautions:

Avoid inhalation. Avoid contact with the skin, eyes and clothing.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Handling

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

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

Keep under inert gas.

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

Components with occupational exposure limits

glutaral, 111-30-8;

Peak limitation 0.41 mg/m³ ; 0.1 ppm (OEL (AU))

Personal protective equipment

Respiratory protection:

Breathing protection if gases/vapours are formed. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A) Respiratory protection in case of vapour/aerosol release. Combination filter for gases/vapours of organic compounds and solid and liquid particles (f.e. EN 14387 Type A-P2)

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

butyl rubber (butyl) - 0.7 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

Manufacturer's directions for use should be observed because of great diversity of types.

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Tightly fitting safety goggles (cage goggles) (e.g. EN 166) and face shield.

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:

Avoid contact with the skin, eyes and clothing. Do not breathe vapour/spray. Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment.

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless to yellowish	
Odour:	pungent odour	
pH value:	3.7	(other)
	(50 %(m), 23 °C)	
	5.9	(other)
	(water, 0.5 %(m), 23 °C)	
Melting point:	-5 °C	
Boiling point:	101.5 °C	(other)
	(987.1 hPa)	

(30059034/SDS_GEN_AU/EN)

Date of print 09.10.2013

Information on: glutaral		
Flash point:	95 °C (50 %(m)) No flash point - Measurement made up to the indicated temperature, pilot light extinguishes.	(closed cup)

Flammability:	not flammable	(other)
Lower explosion limit:	For liquids not relevant for classification and labelling.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Information on: glutaral		
Ignition temperature:	395 °C (50 %(m))	(Directive 92/69/EEC, A.15)

Self ignition:	not self-igniting	Test type: Spontaneous self-ignition at room-temperature. (Method: other)
Explosion hazard:	not explosive	(Directive 92/69/EEC, A.14)
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	(other)
Vapour pressure:	20 hPa (20.1 °C)	(measured)
Density:	1.0648 g/cm ³ (20 °C)	(pycnometer)
Solubility in water:	miscible (20.2 °C)	
Partitioning coefficient n-octanol/water (log Pow):	-0.36 (23 °C; pH value: 7)	(Directive 92/69/EEC, A.8)
Information on: glutaral		
Adsorption/water - soil:	log KOC: 0.76	(other)

Surface tension:	68 mN/m (20 °C; 1 g/l)	(OECD-Guideline 115)
Viscosity, kinematic:	12.75 mm ² /s (25 °C)	
Molar mass:	100.12 g/mol	

10. Stability and Reactivity

Conditions to avoid:

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

BASF Safety data sheet
Date / Revised: 07.10.2013
Product: **Protectol® GA 24**

Version: 2.0

(30059034/SDS_GEN_AU/EN)

Date of print 09.10.2013

Thermal decomposition: < 110 °C
No exothermic decomposition within the mentioned temperature range. No decomposition if used as directed. It is not a self-decomposable substance.

Substances to avoid:
amines

Corrosion to metals: Corrosive effect on metals.

Hazardous reactions:
Reacts with amines. The progress of reaction is exothermic.

Hazardous decomposition products:
carbon oxides

11. Toxicological Information

Acute toxicity

Information on: glutaral
Assessment of acute toxicity:
Of high toxicity after single ingestion. Of high toxicity after short-term inhalation. Of low toxicity after short-term skin contact.

Information on: glutaral
LD50 rat (oral): approx. 158 mg/kg (OECD Guideline 401)

Information on: glutaral
LC50 rat (by inhalation): 0.28 - 0.39 mg/l 4 h (similar to OECD guideline 403)
An aerosol was tested.

LC100 rat (by inhalation): 15 mg/l 7 h (IRT)
The vapour was tested.

Information on: glutaral
LD50 rat (dermal): > 1,000 mg/kg (OECD Guideline 402)
The data on toxicology refer to the active ingredient. The value meets the highest applied test concentration.

LD50 rabbit (dermal): > 1,000 mg/kg (similar to OECD guideline 402)
No mortality was observed. The data on toxicology refer to the active ingredient. The value meets the highest applied test concentration.

Irritation

Information on: glutaral
Assessment of irritating effects:

Corrosive! Damages skin and eyes.

Information on: glutaral
Primary skin irritation rabbit: Corrosive. (OECD Guideline 404)

Information on: glutaral
Primary irritations of the mucous membrane rabbit: Risk of serious damage to eyes. (Draize test)

Assessment other acute effects

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

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

Sensitization

Information on: glutaral
Assessment of sensitization:
Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract.

Information on: glutaral
Open epicutaneous test (OET) guinea pig: sensitizing

human: sensitizing

Genetic toxicity

Information on: glutaral
Assessment of mutagenicity:
The substance was mutagenic in various test systems with bacterias and cell cultures; however, these results could not be confirmed in tests with mammals.

Carcinogenicity

Information on: glutaral
Assessment of 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.

Reproductive toxicity

Information on: glutaral

Assessment of reproduction toxicity:

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

Developmental toxicity

Information on: glutaral

Assessment of teratogenicity:

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

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The ecological data given are those of the active ingredient.

Information on: glutaral

Toxicity to fish:

LC50 (96 h) 39 mg/l, *Cyprinodon variegatus* (Fish test acute, static)

The details of the toxic effect relate to the nominal concentration.

LC50 (96 h) 9.4 mg/l, *Lepomis macrochirus* (Fish test acute, static)

The details of the toxic effect relate to the nominal concentration.

Information on: glutaral

Aquatic invertebrates:

EC50 (48 h) 5.75 mg/l, *Daphnia magna* (Daphnia test acute, static)

The details of the toxic effect relate to the nominal concentration.

EC50 (96 h) 0.75 mg/l, *Crassatrea virginica* (other, Flow through.)

The statement of the toxic effect relates to the analytically determined concentration.

LC50 (96 h) 5.5 mg/l, *Mysidopsis bahia* (OPP 72-3 (EPA-Guideline), Flow through.)

The statement of the toxic effect relates to the analytically determined concentration.

Information on: glutaral

Aquatic plants:

EC50 (72 h) 0.6 mg/l (growth rate), *Desmodismus subspicatus* (OECD Guideline 201, static)

The statement of the toxic effect relates to the analytically determined concentration.

No observed effect concentration (72 h) 0.025 mg/l, *Desmodismus subspicatus* (OECD Guideline 201, static)

The statement of the toxic effect relates to the analytically determined concentration.

EC50 (72 h) 0.92 mg/l (growth rate), *Skeletonema costatum* (ISO/DIS 10253)

The details of the toxic effect relate to the nominal concentration.

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

Mobility

Information on: glutaral
Assessment transport between environmental compartments:
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is possible.

Persistence and degradability

Information on: glutaral
Assessment biodegradation and elimination (H₂O):
Readily biodegradable (according to OECD criteria).

Information on: glutaral
Elimination information:
90 - 100 % DOC reduction (28 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)

Information on: glutaral
Assessment of stability in water:
In contact with water the substance will hydrolyse slowly.

Sum parameter

| Theoretical Oxygen Demand (ThOD): (calculated) 460.3 mg/g

Bioaccumulation potential

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

Information on: glutaral
Assessment bioaccumulation potential:
No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Additional information

Other ecotoxicological advice:
Data refer to a diluted aqueous solution of the substance.

13. Disposal Considerations

Incinerate in suitable incineration plant, observing local authority regulations.

(30059034/SDS_GEN_AU/EN)

Date of print 09.10.2013

A waste code in accordance with the European waste catalog (EWC) cannot be specified, due to dependence on the usage.

The waste code in accordance with the European waste catalog (EWC) must be specified in cooperation with disposal agency/manufacturer/authorities.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Domestic transport:

Hazard class: 8
Packing group: II
ID number: UN 3265
Hazard label: 8
Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (contains GLUTARALDEHYDE)

Further information

Hazchem Code:2X
IERG Number:36

Sea transport

IMDG

Hazard class: 8
Packing group: II
ID number: UN 3265
Hazard label: 8
Marine pollutant: NO
Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (contains GLUTARALDEHYDE)

Air transport

IATA/ICAO

Hazard class: 8
Packing group: II
ID number: UN 3265
Hazard label: 8
Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (contains GLUTARALDEHYDE)

15. Regulatory Information

Poisons Schedule: Not scheduled

Regulations of the European union (Labelling)

Directive 1999/45/EC ('Preparation Directive'):

Hazard symbol(s)

C Corrosive.

R-phrases(s)

R34 Causes burns.

R20/22 Harmful by inhalation and if swallowed.

R42/43 May cause sensitization by inhalation and skin contact.

S-phrases(s)

S36/37 Wear suitable protective clothing and gloves.

S23.1 Do not breathe spray.

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

S28.2 After contact with skin, wash immediately with plenty of water.

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

S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Classification according to the calculation method of the directive for preparations (1999/45/EC).

Hazard determining component(s) for labelling: GLUTARALDEHYDE

Other regulations

Registration status:

AICS, AU released / listed

16. Other Information

Must not be used in spray form.

Full text of hazard symbols and R-phrases if mentioned as hazardous components in section 3:

T Toxic.

N Dangerous for the environment.

23/25 Toxic by inhalation and if swallowed.

34 Causes burns.

42/43 May cause sensitization by inhalation and skin contact.

BASF Safety data sheet
Date / Revised: 07.10.2013
Product: **Protectol® GA 24**

Version: 2.0

(30059034/SDS_GEN_AU/EN)

Date of print 09.10.2013

|50

Very toxic to aquatic organisms.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.