

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 08.04.2020

Version n° 10

Revision: 31.03.2020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Pentane-1,2-diol
CAS N° : 5343-92-0
Trade Name :

A-Leen 5

INCI Name :

Pentyleneglycol

MINASOLVE Code:

PFS0008/G

REACH Registration number :

01-2119491291-39-0004

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : cosmetic ingredient

1.3 Details of the supplier of the safety data sheet

 Minasolve S.A.S.
 145, Chemin des Lilas
 F-59310 Beuvry-la-Forêt
 +33 3 20 64 68 30

E-Mail (Writer SDS)

sds@minakem.com

1.4 Emergency telephone number:

 +33 3 20 64 68 30 (MINAKEM)
 +33 1 45 42 59 59 (INRS - ORFILA)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008


GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms


GHS05

Signal word

Danger

Hazard statements

H318 Causes serious eye damage.

Precautionary statements

 P280 Wear eye protection / face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P310	Immediately call a POISON CENTER/ doctor.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards no data available

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances

Chemical Name	pentane-1,2-diol
Identification numbers:	CAS N° : 5343-92-0 EC N° : 226-285-3 INDEX N° : -
Concentration:	≥ 99%
Formula :	C ₅ H ₁₂ O ₂
Formula weight :	104.15g/mol

SECTION 4: First aid measures

4.1 Description of first aid measures

After inhalation:	Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
After skin contact:	Remove contaminated clothes, wash affected area with soap and water and rinse thoroughly. If skin irritation continues, consult a doctor.
After eye contact:	Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing:	Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

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SECTION 5: Firefighting measures

5.1 Suitable extinguishing agents:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment :
Water spray, foam, carbon dioxide (CO₂), dry chemical

5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire : CO.

5.3 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment recommended in section 8

6.2 Environmental precautions:

Keep contaminated washing water and dispose of appropriately.
Do not allow to penetrate the ground/soil.

6.3 Methods and material for containment and cleaning up:

Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions:

Store at room temperature and dry conditions in well sealed receptacles.

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with occupational exposure limits :
No occupational exposure limits known.

Ingredients with limit values that require monitoring at the workplace: DNELs

worker: Long- and short-term exposure - systemic effects, dermal: 25 mg/kg
worker: Long-term exposure- systemic effects, Inhalation: 17,6 mg/m³
worker: Long- and short-term exposure - local effects, dermal: 2,02 mg/cm²

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worker: Short-term exposure - systemic effects, Inhalation: 35,2 mg/m³
consumer: Long- and short-term exposure - systemic effects, dermal: 12,5 mg/kg
consumer: Long-term exposure- systemic effects, Inhalation: 4,4 mg/m³
consumer: Long- and short-term exposure - systemic effects, oral: 1,25 mg/kg
consumer: Short-term exposure - systemic effects, Inhalation: 8,8 mg/m³
consumer: Long- and short-term exposure - systemic effects, dermal: 1,1 mg/cm²
freshwater: 0,5 mg/l
marine water: 0,05 mg/l
intermittent release: 5 mg/l
sediment (freshwater): 1,85 mg/kg
soil: 0,0764 mg/kg
STP: 5500 mg/l
sediment (marine water): 0,185 mg/kg

PNECs

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Ensure good ventilation/exhaustion at the workplace.

Respiratory protection :

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:



Wear protective gloves

Material of gloves (recommendation) :

Neoprene or nitrile gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Eye protection:



Wear safety goggles

Check that an emergency eyewash facility is available near the handling zone

Body protection:



Wear protective work clothing: safety shoes, apron

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Check that a security shower is available
near the handling zone

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Colourless
Odour:	Odourless or faint
Odour threshold:	no data available
pH-value (500 g/l) at 20 °C:	7-8
Melting point:	<-30 °C (literature data)
Initial boiling point and boiling range:	206 °C
Evaporation rate:	no data available
Flash point:	105 °C (DIN 51758, closed cup)
Flammability (solid, gas):	Low flammability
Decomposition temperature:	No decomposition if the regulations / notes for storage and handling are observed
Auto-ignition temperature:	380°C (DIN 51794)
Explosive properties:	no data available
Explosion limits:	
Lower:	1.7 Vol % (105.5°C)
Upper:	9.3 Vol % (139°C)
Oxidising properties:	no data available
Vapour pressure at 25 °C:	0.0509 hPa
Density:	
Relative density at 20 °C:	0.97 (liquid state)
Vapour density at 20 °C:	0.97 g/cm³
Solubility(ies)	
water at 20 °C:	1000 g/l
	Literature data., fully soluble, hygroscopic
alcohols:	Very soluble in :
	Ethanol
Partition coefficient: n-octanol/water at 25 °C:	0.06 log KOW (OECD Guideline 107)

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Viscosity:

Dynamic :
77.1 mPa.s (20 °C) - OECD 114
22.9 mPa.s (40°C)
Kinematic :
79.4 mm²/s (20°C)
24 mm²/s (40°C)

9.2 Other information

Thermal decomposition:
195 °C, 10 kJ/kg, (DSC (DIN 51007))
425 °C, > 90 kJ/kg, (DSC (DIN 51007))
It is not a self-decompositionable substance.

Fire promoting properties:
Not fire-propagating

Surface tension:
Hygroscopic. Based on chemical structure,
surface activity is not to be expected.

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SECTION 10: Stability and reactivity

10.1 Reactivity

No hazardous reactions if stored and handled as prescribed/
indicated.
Forms no flammable gases in the presence of water.

10.2 Chemical stability

Conditions to be avoided:

No decomposition if used and stored according to
specifications.

**10.3 Possibility of hazardous
reactions**

No known hazardous reactions under normal conditions of use
Avoid extreme heat, sources of ignition and electro-static
discharge.

10.4 Conditions to avoid

10.5 Incompatible materials:

Strong oxydizing agents

**10.6 Hazardous decomposition
products:**

Formation of toxic gases is possible during heating or in case of
fire : CO.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

Oral	LD50 (static)	>5,000 mg/kg (rat)
Dermal	LD50 (static)	>2,000 mg/kg (rat)

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Inhalative	LC50/4 h (static)	>7,015 mg/l (rat)
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Assessment of acute toxicity:

Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion.

Primary irritant effect:

Skin corrosion/irritation

Assessment of irritating effects:
 Not irritating to the skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation

Causes serious eye damage.

Assessment of irritating effects:

Serious eye damage/irritation rabbit: irreversible damage (OECD Guideline 405)

Respiratory or skin sensitisation

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

guinea pig: Non-sensitizing.

Repeated dose toxicity

Oral NOAEL = 1000 mg/kg/day

Dermal NOAEL = 700 mg/kg/day

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

No mutagenic effect was found in various tests with bacteria and mammalian cell culture.

AMES test : negative

Chromosomal aberration test : negative

Carcinogenicity

No data available concerning carcinogenic effects. Study scientifically not justified.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment of teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

STOT-single exposure

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

STOT-repeated exposure

No adverse effects were observed after repeated oral exposure in animal studies. No adverse effects were observed after repeated dermal exposure in animal studies. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

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Aspiration hazard

No aspiration hazard expected.

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

EC50/48h (static) >500 mg/l (Daphnia magna)

LC50/96h (static) >1,000 mg/l (Zebra fish)

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Aquatic invertebrates:

EC50 (48 h) > 500 mg/l, Daphnia magna (Directive 79/831/EEC, static)

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

Aquatic plants:

EC50 (72 h) 9.335 mg/l (growth rate), Scenedesmus subspicatus (DIN 38412 Part 9, static)

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

Microorganisms/Effect on activated sludge:

EC20 (0,5 h) > 1.000 mg/l, activated sludge, industrial (DIN EN ISO 8192, aquatic)

EC50 (17 h) > 10.000 mg/l, Pseudomonas putida (DIN 38412 Part 8, aquatic)

Chronic toxicity to fish:

Study scientifically not justified.

Chronic toxicity to aquatic invertebrates:

Study scientifically not justified.

Assessment of terrestrial toxicity:

Study scientifically not justified.

12.2 Persistence and degradability

Readily biodegradable, but failing 10-day window (OECD 301E)

Assessment biodegradation and elimination (H2O):

Readily biodegradable (according to OECD criteria).

Elimination information:

73 % DOC reduction (28 d) (OECD 301E; 84/449/EEC, C.3)

Assessment of stability in water:

According to structural properties, hydrolysis is not expected/probable.

12.3 Bioaccumulative potential

Assessment bioaccumulation potential:

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

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12.4 Mobility in soil

Assessment transport between environmental compartments:
Volatility: The substance will not evaporate into the atmosphere from the water surface.
Adsorption in soil: Adsorption to solid soil phase is not expected.

12.5 Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative). Self classification
The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.6 Other adverse effects

Additional information :
Chemical oxygen demand (COD): 2.070 mg/g
Biochemical oxygen demand (BOD): 1.070 mg/g
Adsorbable organically-bound halogen (AOX): this product contains no organically-bound halogen.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Do not allow product to reach sewage system or any water course
Must be specially treated adhering to official regulations.
Incineration according to regulation in force
Do not allow to penetrate the ground/soil

SECTION 14: Transport information

14.1 UN-Number

ADR, ADN, IMDG, IATA

Void

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA

Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class

Void

14.4 Packing group

ADR, IMDG, IATA

Void

14.5 Environmental hazards:

not applicable

14.6 Special precautions for user

not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

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UN "Model Regulation":

Void

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture

No further relevant information available.

**Directive 2012/18/EU
Named dangerous substances -
ANNEX I**

Substance is not listed.

**15.2 Chemical safety
assessment:**

A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

*** Data compared to the previous
version altered.**

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