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

1.1 Product identifier
Trade name
1,2-Propanediol
Stock number: A18406
CAS Number: 57-55-6
EC number: 200-338-0

1.2 Relevant identified uses of the substance or mixture and uses advised against.
Identified use:
SU24 Scientific research and development

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier: Alfa Aesar GmbH & Co.KG
A Johnson Matthey Company
Zeppelinstr. 7b
76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 8407 300
Email: tech@alfa.com
www.alfa.com
Informing department: Product safety
Tel +49 (0) 7275 988687-0

1.4 Emergency telephone number:
Carechem 24: +44 (o) 1235 239 670 (Multi-language emergency number)
Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC)
The substance is not classified as hazardous to health or the environment according to the CLP regulation.
Classification according to Directive 67/548/EEC or Directive 1999/45/EC
Not applicable
Information concerning particular hazards for human and environment:
Not applicable
Other hazards that do not result in classification
No information known.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
Not applicable
Hazard pictograms
Not applicable
Signal word
Not applicable
Hazard statements
Not applicable

SECTION 3: Composition/information on ingredients

3.1 Substances
CAS# Designation: 57-55-6 1,2-Propanediol
Identification number(s):
EC number: 200-338-0

SECTION 4: First aid measures

4.1 Description of first aid measures
After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
After skin contact
Instantly wash with water and soap and rinse thoroughly. Seek immediate medical advice.
After eye contact
Rinse opened eye for several minutes under running water. Then consult doctor.
After swallowing
Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide

5.3 Advice for firefighters
Protective equipment:
Wear self-contained breathing apparatus.
Wear full protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Do not allow material to be released to the environment without proper governmental permits.
Do not allow product to reach sewage system or water bodies.
Do not allow to enter the ground/soil.

6.2 Environmental precautions:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
No special measures required.
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

6.3 Methods and material for containment and cleaning up:
Prevention of secondary hazards:
6.4 Reference to other sections
See Contd. on page 2

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Information about protection against explosions and fires:
Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
No information known.
Trade name 1,2-Propanediol

7.2 Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and containers:
No special requirements.
Information about storage in one common storage facility:
Store away from oxidizing agents.
Store away from water.
Further information about storage conditions:
This product is hygroscopic.
Store under dry inert gas.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from humidity and keep away from water.

7.3 Specific end use(s)
No further relevant information available.

SECTION 8: Exposure controls/personal protection
Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

8.1 Control parameters
Components with critical values that require monitoring at the workplace:
57-55-6 1,2-Propanediol (100.0%)
MAK (Germany) vgl.Abschn.IIb
WEEL (USA) 10 mg/m³

Additional information:
No data

8.2 Exposure controls
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures should be adhered to in handling the chemicals.
Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Maintain an ergonomically appropriate working environment.
Breathing equipment:
Use breathing protection with high concentrations.
Protection of hands:
Check protective gloves prior to each use for their proper condition.
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.
Material of gloves
Impervious gloves
Penetration time of glove material
Not determined
Eye protection:
Safety glasses
Body protection:
Protective work clothing.

SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties
General Information
Appearance:
Form: Liquid
Colour: Colourless
Smell: Nearly odourless
Odour threshold: Not determined.
pH-value (- g/l) :
neutral
Change in condition
Melting point/Melting range: -60 °C
Boiling point/Boiling range: 186-188 °C
Sublimation temperature / start: Not determined

Flash point:
107 °C
Inflammability (solid, gaseous):
Not determined.
Ignition temperature:
371 °C
Decomposition temperature:
Not determined
Self-inflammability:
Not determined
Critical values for explosion:
Lower: 2.6 Vol %
Upper: 12.6 Vol %
Steam pressure at 20 °C:
0.11 hPa
Density at 20 °C:
1.036 g/cm³
Relative density:
Not determined
Vapour density:
Not determined
Evaporation rate:
Not determined
Solubility in / Miscibility with Water:
Fully miscible
Partition coefficient (n-octanol/water):
Not determined
Viscosity:
dynamic at 25 °C: 46 mPas
kinematic: Not determined

9.2 Other information
No further relevant information available.

SECTION 10: Stability and reactivity
10.1 Reactivity
No information known.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No decomposition if used and stored according to specifications.

10.5 Incompatible materials
Water/moisture

10.6 Hazardous decomposition products:
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information
11.1 Information on toxicological effects
Acute toxicity:
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.
LD/LC50 values that are relevant for classification:
No data
### SECTION 12: Ecological information

**12.1 Toxicity**
- Aquatic toxicity:
  - No further relevant information available.
- 12.2 Persistence and degradability:
  - No further relevant information available.
- 12.3 Bioaccumulative potential:
  - No further relevant information available.
- 12.4 Mobility in soil:
  - Do not allow material to be released to the environment without proper governmental permits.
  - Water hazard class 1 (Assessment by list): slightly hazardous for water.
  - Avoid transfer into the environment.

### SECTION 13: Disposal considerations

**13.1 Waste treatment methods**
- Hand over to disposers of hazardous waste.
- Must be specially treated under adherence to official regulations.

**13.5 Results of PBT and vPvB assessment**
- Not applicable.
- Not applicable.
- No further relevant information available.

**SECTION 14: Transport information**

**UN-Number**
- ADR, ADN, IMDG, IATA: Not applicable

**14.2 UN proper shipping name**
- ADR, ADN, IMDG, IATA: Not applicable

**14.3 Transport hazard class(es)**
- ADR, ADN, IMDG, IATA: Not applicable

**14.4 Mobility in soil**
- ADR, ADN, IMDG, IATA: Not applicable

**14.6 Special precautions for user**
- ADR, ADN, IMDG, IATA: Not applicable

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
- Not applicable.

**UN "Model Regulation"**
- -

**SECTION 15: Regulatory information**

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

**Australian Inventory of Chemical Substances**
- Substance is listed.

**Standard for the Uniform Scheduling of Drugs and Poisons**
- Substance is not listed.

**National regulations**
- Substance is not listed.

**Information about limitation of use**
- For use only by technically qualified individuals.

**Classification according to VbF: Technical instructions (air):**
- Not applicable

**Class Share in %**

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<th>Class</th>
<th>Share in %</th>
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**Other regulations, limitations and prohibitive regulations**

**EINECS (European Inventory of Existing Commercial Chemical Substances)**
- Substance is not listed.

**Substances of very high concern (SVHC) according to REACH, Article 57**
- Substance is not listed.

**REACH - Pre-registered substances**
- Substance is listed.

**15.2 Chemical safety assessment**
- A Chemical Safety Assessment has not been carried out.

**Water hazard class**
- Water hazard class 1 (Assessment by list): slightly hazardous for water.

**Other substances**

**Aspiration hazard**
- No effects known.

**Eye irritation or corrosion**
- May cause irritation

**Skin irritation or corrosion**
- May cause irritation

**Technical instructions (air):**
- For use only by technically qualified individuals.

**General notes:**
- Do not allow material to be released to the environment without proper governmental permits.
- Avoid transfer into the environment.

**Disposal must be made according to official regulations.**

**Recommendations:**
- Hand over to disposers of hazardous waste.
- Must be specially treated under adherence to official regulations.
- Consult state, local or national regulations for proper disposal.

**Disposal of uncleaned packagings:**
- Disposal must be made according to official regulations.

**Recommended cleaning agent:**
- Water, if necessary with cleaning agent.
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<th>Trade name</th>
<th>1,2-Propanediol</th>
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CAS: Chemical Abstracts Service (division of the American Chemical Society)
VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
LD50: Lethal dose, 50 percent