

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 09.09.2010

Revision: 09.09.2010

1 Identification of substance

Product details

Trade name

n-Propylamine

Stock number:

A11606, L13902

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com

Informing department:

Product safety department.

Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon: +49(0)6131/19240

2 Hazards identification

Hazard designation:

C Corrosive
F Highly flammable

Information pertaining to particular dangers for man and environment

R 11 Highly flammable.
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 34 Causes burns.

GHS label elements

**Danger**

H225 - Highly flammable liquid and vapour.

**Danger**

H314 - Causes severe skin burns and eye damage.

**Warning**H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H332 - Harmful if inhaled.

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response:

P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

n-Propylamine (CAS# 107-10-8); 100%

Identification number(s):

EINECS Number:

203-462-3

4 First aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

After swallowing

Rinse opened eye for several minutes under running water. Then consult doctor.
Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents

Special hazards caused by the material, its products of combustion or flue gases:

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

Protective equipment:

Can be released in case of fire:
Nitrogen oxides (NOx)
Carbon monoxide and carbon dioxide
Wear self-contained breathing apparatus.
Wear full protective suit.

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Measures for cleaning/collecting:

Ensure adequate ventilation
Keep away from ignition sources
Do not allow material to be released to the environment without proper governmental permits.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
Keep away from ignition sources.
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

Additional information:

7 Handling and storage

Handling

Information for safe handling:

Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.

Storage

Requirements to be met by storerooms and containers:

Information about storage in one common storage facility:

Store in cool location.

Store away from oxidizing agents.
Do not store together with acids.(Contd. on page 2)
GB

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Trade name ***n-Propylamine*****Further information about storage conditions:**

Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.

(Contd. of page 1)

8 Exposure controls and 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.

**Components with critical values that require monitoring at the workplace:
Additional information:**

Not required.
No data

**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.
Use breathing protection with high concentrations.

Breathing equipment:**Eye protection:**

Safety glasses

Body protection:Face protection
Protective work clothing.**9 Physical and chemical properties:****General Information**

Form: Liquid
Colour: Colourless
Smell: Amine-like

Change in condition

Melting point/Melting range: -83°C
Boiling point/Boiling range: 48°C
Sublimation temperature / start: Not determined

Flash point: -35°C**Ignition temperature:** 317°C**Decomposition temperature:** Not determined**Critical values for explosion:**

Lower: 2 Vol %
Upper: 10.4 Vol %

Steam pressure at 20°C: 330 hPa**Density at 20°C** 0.719 g/cm³**Solubility in / Miscibility with
Water:**

Fully miscible

10 Stability and reactivity**Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

Materials to be avoided:

Acids
Oxidizing agents
Acid chlorides
Acid anhydrides
Strong exothermic reaction with acids
Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide

Dangerous reactions:**Dangerous products of decomposition:****11 Toxicological information****Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral	LD50	370 mg/kg (rat)
Dermal	LD50	560 µg/kg (rabbit)
Inhalative	LC50	2500 mg/m ³ (mam)
	LC50/2H	2500 mg/m ³ /2H (mouse)
	LC50/4H	2310 ppm/4H (rat)
Irritation of eyes	severe	720 ug (rabbit)

Primary irritant effect:**on the skin:**

Irritant for skin and mucous membranes.

on the eye:

Irritant effect.

Sensitization:

No sensitizing effect known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:**Additional ecological information:****General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations**Product:****Recommendation**

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

Uncleaned packagings:**Recommendation:**

Disposal must be made according to official regulations.

(Contd. on page 3)

GB

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Recommended cleaning agent: Water, if necessary with cleaning agent.

(Contd. of page 2)

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)



ADR/RID-GGVS/E Class: 3 (FC) Flammable liquids.
 Kemler Number: 338
 UN-Number: 1277
 Packaging group: II
 Label: 3+8
 Designation of goods: 1277 PROPYLAMINE
 Limited quantities (LQ): LQ4
 Transport category: 2
 Tunnel restriction code: D/E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 3
 UN Number: 1277
 Label: 3+8
 Packaging group: II
 Marine pollutant: No
 Correct technical name: PROPYLAMINE

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 3
 UN/ID Number: 1277
 Label: 3+8
 Packaging group: II
 Correct technical name: PROPYLAMINE

UN "Model Regulation":

UN1277, PROPYLAMINE, 3 (8), II

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



C Corrosive
 F Highly flammable

Risk phrases:

11 Highly flammable.
 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
 34 Causes burns.

Safety phrases:

9 Keep container in a well-ventilated place.
 16 Keep away from sources of ignition - No smoking.
 20 When using do not eat or drink.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 60 This material and its container must be disposed of as hazardous waste.

National regulations

Information about limitation of use:

Employment restrictions concerning young persons must be observed.
 For use only by technically qualified individuals.

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

Contact: Zachariah Holt

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)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent