

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 24.08.2010

Revision: 24.08.2010

**1 Identification of substance****Product details****Trade name****1-Methyl-1-cyclohexene****Stock number:**

L15014

**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:**


Xn Harmful  
F Highly flammable
**Information pertaining to particular dangers for man and environment**R 11 Highly flammable.  
R 65 Harmful: may cause lung damage if swallowed.**GHS label elements**

**Danger**

H225 - Highly flammable liquid and vapour.


**Danger**

H304 - May be fatal if swallowed and enters airways.  
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

**Prevention:****Response:****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#)**

1-Methyl-1-cyclohexene (CAS# 591-49-1): 100%

**Identification number(s):**

209-718-0

**EINECS Number:****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:**CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.**Protective equipment:**Can be released in case of fire:  
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:**

Store in cool location.

**Information about storage in one common storage facility:**

Store away from oxidizing agents.

**Further information about storage conditions:**Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.**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:**

Not required.

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Additional information: 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.

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.

Impervious gloves

Not determined

Safety glasses

Face protection

Protective work clothing.

Penetration time of glove material

Eye protection:

Body protection:

**9 Physical and chemical properties:****General Information**

Form: Liquid  
 Colour: Colourless  
 Smell: Not determined

Change in condition  
 Melting point/Melting range: Not determined  
 Boiling point/Boiling range: 108-112°C  
 Sublimation temperature / start: Not determined

Flash point: -1°C

Ignition temperature: Not determined

Decomposition temperature: Not determined

Critical values for explosion:  
 Lower: Not determined  
 Upper: Not determined

Steam pressure: Not determined

Density at 20°C 0.81 g/cm<sup>3</sup>

Solubility in / Miscibility with  
 Water: Not miscible or difficult to mix

**10 Stability and reactivity**

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Materials to be avoided:

Oxidizing agents

Dangerous reactions:

No dangerous reactions known

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide

**11 Toxicological information**

Acute toxicity:

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.

**14 Transport information**

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



ADR/RID-GGVS/E Class: 3 (F1) Flammable liquids.

Kemler Number:

33

UN-Number:

3295

Packaging group:

II

Label

3

Designation of goods:

3295 HYDROCARBONS, LIQUID, N.O.S. (vapor pressure at 50°C at most 110 kPa)

Tunnel restriction code

D/E

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**Maritime transport IMDG/GGVSea:**

IMDG/GGVSea Class: 3  
 UN Number: 3295  
 Label: 3  
 Packaging group: II  
 Marine pollutant: No  
 Correct technical name: HYDROCARBONS, LIQUID, N.O.S.

**Air transport ICAO-TI and IATA-DGR:**

ICAO/IATA Class: 3  
 UN/ID Number: 3295  
 Label: 3  
 Packaging group: II  
 Correct technical name: HYDROCARBONS, LIQUID, N.O.S.

UN "Model Regulation": UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, II

**15 Regulatory information**

Designation according to EC guidelines:

Code letter and hazard designation of product:



Xn Harmful  
 F Highly flammable

Risk phrases:

11 Highly flammable.  
 65 Harmful: may cause lung damage if swallowed.

Safety phrases:

33 Take precautionary measures against static discharges.  
 36 Wear suitable protective clothing.

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)