

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Revision: 17.08.2010

Printing date 17.08.2010

**1 Identification of substance****Product details**

Trade name

**Cycloheptatriene**

Stock number:

A17064, L15081

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:



 T Toxic  
F Highly flammable

Information pertaining to particular dangers for man and environment

 R 11 Highly flammable.  
 R 21 Harmful in contact with skin.  
 R 25 Toxic if swallowed.  
 R 36/37/38 Irritating to eyes, respiratory system and skin.  
 R 65 Harmful: may cause lung damage if swallowed.

GHS label elements

 **Danger**

H225 - Highly flammable liquid and vapour.

 **Danger**
H301 - Toxic if swallowed.  
H311 - Toxic in contact with skin.
 **Danger**

H304 - May be fatal if swallowed and enters airways.

**Warning**
 H315 - Causes skin irritation.  
 H319 - Causes serious eye irritation.  
 H335 - May cause respiratory irritation.  
 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.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P361 Remove/Take off immediately all contaminated clothing.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Response:

Storage:  
Disposal:**3 Composition/information on ingredients**

Chemical characterization:

Designation: (CAS#)

Cycloheptatriene (CAS# 544-25-2): 100%

Identification number(s):

EINECS Number:

208-866-3

**4 First aid measures**

General information

 Instantly remove any clothing soiled by the product.  
 In case of irregular breathing or respiratory arrest provide artificial respiration.  
 Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
 After inhalation  
 Seek immediate medical advice.  
 Instantly wash with water and soap and rinse thoroughly.  
 After skin contact  
 Seek immediate medical advice.  
 After eye contact  
 Rinse opened eye for several minutes under running water. Then consult doctor.  
 After swallowing  
 Do not induce vomiting; instantly call for medical help.  
 Seek immediate medical advice.
**5 Fire fighting measures**

Suitable extinguishing agents

CO2, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents

Water.

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

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

Protective equipment:

**6 Accidental release measures**

Person-related safety precautions:

 Wear protective equipment. Keep unprotected persons away.  
 Ensure adequate ventilation  
 Keep away from ignition sources

Measures for environmental protection:

Measures for cleaning/collecting:

 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.  
 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.

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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:**

Refrigerate  
Store away from oxidizing agents.  
Protect from heat.

**Further information about storage conditions:**

Keep container tightly sealed.  
Store in a locked cabinet or with access restricted to technical experts or their assistants.  
Refrigerate

**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.  
Avoid contact with the eyes and skin.

**Breathing equipment:**  
**Protection of hands:**  
**Material of gloves**

Use breathing protection with high concentrations.  
Check protective gloves prior to each use for their proper condition.  
Impervious 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.

**Penetration time of glove material**  
**Eye protection:**

Not determined  
Face protection  
Safety glasses  
Protective work clothing.

**Body protection:**

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

**Form:** Liquid  
**Colour:** Yellow  
**Smell:** Unpleasant

**Change in condition**  
**Melting point/Melting range:** -80°C  
**Boiling point/Boiling range:** 115-117°C  
**Sublimation temperature / start:** Not determined

**Flash point:** 5°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** 0.888 g/cm<sup>3</sup>

**Solubility in / Miscibility with Water at 20°C:** 0.62 g/l

**10 Stability and reactivity**

**Thermal decomposition / conditions to be avoided:**  
**Materials to be avoided:**

No decomposition if used and stored according to specifications.  
Oxidizing agents  
Heat

**Dangerous reactions:** No dangerous reactions known  
**Dangerous products of decomposition:** Carbon monoxide and carbon dioxide

**11 Toxicological information**

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

Oral	LD50	171 mg/kg (mouse) 57 mg/kg (rat)
Dermal	LD50	442 mg/kg (rat)

**Primary irritant effect:**

Irritant for skin and mucous membranes.  
Irritant effect.

**on the skin:**

**on the eye:**

**Sensitization:**

**Additional toxicological information:**

No sensitizing effect known.  
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.  
Danger by skin resorption.  
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.

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**13 Disposal considerations**

**Product:**  
**Recommendation:** 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.

**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 (FT1) Flammable liquids.  
**Kemler Number:** 336  
**UN-Number:** 2603  
**Packaging group:** II  
**Label:** 3+6.1  
**Designation of goods:** 2603 CYCLOHEPTATRIENE  
**Limited quantities (LQ):** LQ0  
**Transport category:** 2  
**Tunnel restriction code:** D/E

**Maritime transport IMDG/GGVSea:**

**IMDG/GGVSea Class:** 3  
**UN Number:** 2603  
**Label:** 3+6.1  
**Packaging group:** II  
**Marine pollutant:** No  
**Correct technical name:** CYCLOHEPTATRIENE

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

**ICAO/IATA Class:** 3  
**UN/ID Number:** 2603  
**Label:** 3+6.1  
**Packaging group:** II  
**Correct technical name:** CYCLOHEPTATRIENE

**UN "Model Regulation":** UN2603, CYCLOHEPTATRIENE, 3 (6.1), II

**15 Regulatory information****Designation according to EC guidelines:****Code letter and hazard designation of product:**

T Toxic  
F Highly flammable

**Risk phrases:**  
11 Highly flammable.  
21 Harmful in contact with skin.  
25 Toxic if swallowed.  
36/37/38 Irritating to eyes, respiratory system and skin.  
65 Harmful: may cause lung damage if swallowed.

**Safety phrases:**  
16 Keep away from sources of ignition - No smoking.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
33 Take precautionary measures against static discharges.  
36/37 Wear suitable protective clothing and gloves.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

**National regulations**

**Information about limitation of use:** For use only by technically qualified individuals.  
Employment restrictions concerning young persons must be observed.

**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