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Printing date 16.07.2010 Revision: 16 07 2010

1 Identification of substance

**Product details** 

Trade name 4-Nonanone

Stock number:

A15050

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG Benzstrasse 3

D-76185 Karlsruhe / Germany

Informing department: Emergency information:

Product safety department.

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

2 Hazards identification

Hazard designation:

Information pertaining to particular dangers for man and environment GHS label elements

void

void Void

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)
Identification number(s):

4-Nonanone (CAS# 4485-09-0): 100% 224-770-4

**EINECS Number:** 

4 First aid measures

After skin contact

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

Instantly wash with water and soap and rinse thoroughly. After inhalation

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

After eye contact After swallowing

5 Fire fighting measures

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

Protective equipment:

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

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

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).

Ensure adequate ventilation.

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

7 Handling and storage

Additional information:

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:

Storage Requirements to be met by storerooms and containers: Information about storage in one common

storage facility: Further information about storage

conditions:

No special requirements.

Store away from oxidizing agents.

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

Keep ignition sources away - Do not smoke.

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 solled and impregnated garments. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.

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.

Safety glasses Eye protection:

Face protection Protective work clothing. **Body protection:** 

9 Physical and chemical properties:

**General Information** 

Breathing equipment: Protection of hands: Material of gloves

Form: Liquid Smell

Not determined

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

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Trade name <b>4-Nonanone</b>		
		(Contd. of page 1)
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	Not determined 187°C Not determined	
Flash point:	Not determined	
Ignition temperature:	Not determined	
Decomposition temperature:	Not determined	
Danger of explosion:	Product is not explosive.	
Critical values for explosion: Lower: Upper:	Not determined Not determined	
Steam pressure:	Not determined	
Density at 20°C	0.819 g/cm³	
Solubility in / Miscibility with Water:	Not miscible or difficult to mix	

No decomposition if used and stored according to specifications.

## 10 Stability and reactivity

Thermal decomposition / conditions to be

Materials to be avoided: Dangerous reactions

Dangerous products of decomposition:

Oxidizing agents No dangerous reactions known

Carbon monoxide and carbon dioxide

### 11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin:

on the eye: Sensitization

Additional toxicological information:

May cause irritation
May cause irritation
No sensitizing effect known.
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:

Generally not hazardous for water.

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:
None

Maritime transport IMDG/GGVSea: IMDG/GGVSea Class: Marine pollutant:

None Nο

Air transport ICAO-TI and IATA-DGR: ICAO/IATA Class:

None

Transport/Additional information:

Not dangerous according to the above specifications.

## 15 Regulatory information

Designation according to EC guidelines:

Observe the normal safety regulations when handling chemicals The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

**National regulations** 

Information about limitation of use:

For use only by technically qualified individuals.

Generally not hazardous for water.

# Water hazard class: 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.

Contact:
Abbreviations and acronyms:

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

Health, Safety and Environmental Department.

Zachariah Holt

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 RiD: Règlement international Air Transport of Dangerous Goods by Rail)

IMDG: 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)