Safety data sheet according to 1907/2006/EC, Article 31

Printing date 01.07.2013 Revision: 17.10.2005

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

1.1 Product identifier

3-Noradamantanecarboxylic acid Trade name

Stock number:
CAS Number:
16200-53-6
1.2 Relevant identified uses of the substance or mixture and uses advised against.
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 84007 300 Email: tech@alfa.com www.alfa.com

Informing department:

www.alia.com Product safety Tel + +049 (0) 7275 988687-0 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 1.4 Emergency telephone number:

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008

! GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

🗶 Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin. Information concerning particular hazards for human and environment: Not applica Not applicable Other hazards that do not result in

classification

2.2 Label elements Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation. Hazard pictograms Signal word

Hazard statements

Precautionary statements

No information known.

GHS07
Warning
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H319 Cause respiratory irritation.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards Results of PBT and vPvB assessment

PBT: vPvB:

Not applicable. Not applicable.

SECTION 3: Composition/information on ingredients 3.1 Substances

CAS# Designation: 16200-53-6 3-Noradamantanecarboxylic acid

SECTION 4: First aid measures

4.1 Description of first aid measures

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.

Seek immediate medical advice. After inhalation

After skin contact

Rinse opened eye for several minutes under running water. Then consult doctor. Seek medical treatment. After eve contact

After swallowing

4.2 Most important symptoms and effects, both acute and delayed
4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available. No further relevant information available

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing agents 5.2 Special hazards arising from the

substance or mixture

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

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.

6.3 Methods and material for containment

and cleaning up: Prevention of secondary hazards:

6.2 Environmental precautions:

Ensure adequate ventilation. No special measures required.

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6.4 Reference to other sections

See Section 7 for information on safe handling See section 8 for information on personal protection equipment. See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions 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:

7.2 Conditions for safe storage, including any incompatibilities

Storage Requirements to be met by storerooms and

containers: Information about storage in one common

storage facility: Further information about storage

conditions:

7.3 Specific end use(s)

No special requirements.

No information known.

Store away from oxidizing agents.

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

Not required. No data

8.2 Exposure controls

Personal protective equipment General protective and hygienic measures

Powder

105-107 °C

Breathing equipment: Protection of hands:

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. Maintain an ergonomically appropriate working environment. 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

Impervious gloves

Material of gloves Penetration time of glove material Eye protection: Not determined

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance: Form: Colour:

White Smell: Not determined Odour threshold: pH-value: Not applicable.

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Not determined Not determined Not applicable Not determined Flash point

Inflammability (solid, gaseous) Inflammability (solid, gaseous) Ignition temperature: Not determined Not determined Self-inflammability: Not determined Product is not explosive.

Danger of explosion:

Critical values for explosion: Lower: Not determined Upper: Steam pressure: Density Relative density Not determined Not applicable. Not determined Not determined. Vapour density Not applicable. Evaporation rate Solublity in / Miscibility with Not applicable.

Not determined Partition coefficient (n-octanol/water): Not determined. Viscosity:

dynamic: Not applicable. kínematic

Not applicable. No further relevant information available. 9.2 Other information

SECTION 10: Stability and reactivity

10.1 Reactivity 10.2 Chemical stability Thermal decomposition / conditions to be avoided:

10.3 Possibility of hazardous reactions 10.5 Incompatible materials:

No information known.

Stable under recommended storage conditions.

No decomposition if used and stored according to specifications.

No dangerous reactions known Oxidizing agents

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10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide (Contd. of page 2)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: LD/LC50 values that are relevant for classification:

Skin irritation or corrosion: Eye irritation or corrosion: Sensitization:

Germ cell mutagenicity:

Carcinogenicity:

Reproductive toxicity: Specific target organ system toxicity -

repeated exposure: Specific target organ system toxicity - single

exposure:

Aspiration hazard:
Additional toxicological information:

May cause respiratory irritation.

Causes serious eye irritation.
No sensitizing effect known.
No effects known.

No effects known.

No effects known.

No effects known.

Causes skin irritation.

No data

No effects known.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12: Ecological information

12.1 Toxicity

12.1 Toxicity
Aquatic toxicity:
12.2 Persistence and degradability
12.3 Bioaccumulative potential
12.4 Mobility in soil
Additional ecological information:

General notes:

Do not allow material to be released to the environment without proper governmental permits. 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. Avoid transfer into the environment.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

No further relevant information available. No further relevant information available. No further relevant information available. No further relevant information available

12.5 Results of PBT and vPvB assessment

PBT: vPvB: 12.6 Other adverse effects

Not applicable.

Not applicable. No further relevant information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Uncleaned packagings:

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.

None

None

Recommendation:

Disposal must be made according to official regulations.

SECTION 14: Transport information **UN-Number**

ADR, IMDG, IATA

14.2 UN proper shipping name ADR, IMDG, IATA

14.3 Transport hazard class(es)

ADR, IMDG, IATA

Class

Packing group ADR, IMDG, IATA

14.5 Environmental hazards:

14.6 Special precautions for user

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport/Additional information:

None None

Not applicable. Not applicable

Not applicable. Not dangerous according to the above specifications.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Australian Inventory of Chemical

Substances Standard for the Uniform Scheduling of

Information about limitation of use:

Drugs and Poisons National regulations

Substance is not listed.

Substance is not listed.

For use only by technically qualified individuals. Employment restrictions concerning young persons must be observed. Water hazard class 1 (Self-assessment): slightly hazardous for water.

Water hazard class: Other regulations, limitations and prohibitive regulations ELINCS (European List of Notified Chemical

Substances) Substances of very high concern (SVHC) according to REACH, Article 57 REACH - Pre-registered substances

15.2 Chemical safety assessment:

Substance is not listed.

Substance is not listed. Substance is not listed.

A Chemical Safety Assessment has not been carried out.

SECTION 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.

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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Hamonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

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DE/E