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

Printing date 21.12.2010 Revision: 21.12.2010

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

Product identifier

2,3,4-Trifluorobenzyl alcohol Trade name

Stock number: B24306 144284-24-2 CAS Number

Relevant identified uses of the substance or mixture and uses advised against
Sector of Use
SU24 Scientific research and development

Details of the supplier of the safety data sheet Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG Benzstrasse 3

D-76185 Karlsruhe / Germany

Informing department: Product safety department.

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

2 Hazards identification

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

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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: R36/37/38: Irritating to eyes, respiratory system and skin. Information concerning particular hazards

for human and environment: void

Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

The substance is classified and labelled according to the CLP regulation.

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Warning Signal word

Hazard statements

H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Precautionary statements

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.

Specific treatment (see on this label).

P321 P405 Store locked up

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

regulations.

Other hazards

Results of PBT and vPvB assessment PBT:

Not applicable. Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

(CAS#) Designation: 144284-24-2 2,3,4-Trifluorobenzyl alcohol

4 First aid measures

Description of first aid measures After inhalation

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 skin contact

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

After swallowing Information for doctor

Most important symptoms and effects, both

acute and delayed Indication of any immediate medical attention and special treatment needed Seek immediaté medical advice.

No further relevant information available No further relevant information available

5 Firefighting measures

Extinguishing media

Suitable extinguishing agents Special hazards arising from the substance

or mixture

Can be released in case of fire: Carbon monoxide and carbon dioxide Hydrogen fluoride (HF)

Advice for firefighters Protective equipment: Wear self-contained breathing apparatus.

Wear full protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Environmental precautions:

Methods and material for containment and cleaning up:

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

Ensure adequate ventilation
Do not allow material to be released to the environment without proper governmental permits.

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

Reference to other sections

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.

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See Section 13 for information on disposal

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7 Handling and storage

Handling 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:

Keep ignition sources away - Do not smoke.

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:

No special requirements. Store away from oxidizing agents.

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

Specific end use(s) No further relevant information available.

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.

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

Not required. No data

Exposure controls

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.

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

Penetration time of glove material Eye protection:

Not determined Safety glasses
Face protection
Protective work clothing.

Body protection:

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance: Form: Colour: Smell: Odour threshold:

iquid Not determined. Not determined Not determined

Not determined.

Product is not explosive

Not determined.

Not determined.

pH-value:

Not determined Not determined

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Not determined Ignition temperature: Not determined **Decomposition temperature:** Not determined

Self-inflammability: Not determined.

Danger of explosion: Critical values for explosion:

Lower: Not determined Upper: Not determined

Steam pressure: Not determined Density Relative density Not determined Not determined. Vapour density Not determined.

Evaporation ráte Segregation coefficient (n-octanol/water):

Viscosity:

dynamic Not determined. kinematic Not determined.

Other information No further relevant information available

10 Stability and reactivity

Reactivity
Chemical stability
Thermal decomposition / conditions to be avoided:
Possibility of hazardous reactions

Incompatible materials: Hazardous decomposition products:

No decomposition if used and stored according to specifications. No dangerous reactions known

Oxidizing agents
Carbon monoxide and carbon dioxide

Hydrogen fluoride

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11 Toxicological information

Information on toxicological effects

Acute toxicity:
Primary irritant effect:
on the skin:

on the eye: Sensitization:

Additional toxicological information:

Irritant for skin and mucous membranes.

No further relevant information available. No further relevant information available

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

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.

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.

12 Ecological information

Toxicity
Acquatic toxicity:
Persistence and degradability
Behaviour in environmental systems:

Bioaccumulative potential Mobility in soil

Additional ecological information: General notes:

Results of PBT and vPvB assessment

PBT: vPvB:

Other adverse effects

Not applicable.

Not applicable. No further relevant information available.

13 Disposal considerations

Waste treatment methods 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:
None

Maritime transport IMDG/GGVSea: IMDG/GGVSea Class:

Marine pollutant:

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

Special precautions for user

Transport/Additional information:

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

None

None

No

Not applicable.

Not dangerous according to the above specifications.

Not applicable.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture Labelling according to Regulation (EC) No

1272/2008

The substance is classified and labelled according to the sub

Hazard pictograms

The substance is classified and labelled according to the CLP regulation.

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Signal word

Hazard statements

Precautionary statements

Warning
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H319 Cause respiratory 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).
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international

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

Water hazard class: Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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:
Contact:
Abbreviations and acronyms:

Beginning to Department issuing data specification sheet:
Health, Safety and Environmental Department.
Ryan P. Wilson
Abbreviations and acronyms:

Abbreviations and acronyms:

Beginning to Department des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Rail)
IMDG: International Maritime Code for 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: T: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)