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

Printing date 02.07.2013 Revision: 07 08 2012

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

1.1 Product identifier

1.1 Product identified
Trade name
Stock number:
CAS Number:
102995
79645-27-5
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.ana.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



Acute Tox. 4 H302 Harmful if swallowed. Skin Irrit. 2 H315 Causes skin irritation. H319 Causes serious eye irritation. Eye Irrit. 2 STOT SE 3 H335 May cause respiratory irritation.

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

R22: Harmful if swallowed.

Xi; Irritant

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

classification No information known.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms Signal word

Hazard statements

GHS07
Warning
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes respiratory irritation.

Precautionary statements

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

H319 Gauses serious eye irritation.
H335 May 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.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms

regulations.

2.3 Other hazards

Results of PBT and vPvB assessment PBT

Not applicable. vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

CAS# Designation:

3.1 Substances

79645-27-5 Tobramycin sulfate

4.1 Description of first aid measures After inhalation

SECTION 4: First aid measures

persist. Seek immediate medical advice Instantly wash with water and soap and rinse thoroughly. Seek immediate medical advice. After skin contact

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

After eye 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 Sulphur oxides (SOx) Nitrogen oxides (NOx)

Seek medical treatment.

5.3 Advice for tirenging Protective equipment: .3 Advice for firefighters

Wear self-contained breathing apparatus.

Wear full protective suit.

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Trade name *Tobramycin sulfate*

6.2 Environmental precautions:

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Do not allow product to reach sewage system or water bodies.

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:

Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation.

No special measures required.

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

Prevention of secondary hazards: 6.4 Reference to other sections

Keep containers tightly sealed. Ensure good ventilation/exhaustion at the workplace.

Information about protection against

explosions and fires:

No information known. 7.2 Conditions for safe storage, including any incompatibilities

Storage Requirements to be met by storerooms and

containers:

Refrigerate

Information about storage in one common storage facility:

Protect from heat.

Store away from oxidizing agents.

Further information about storage

conditions:

7.3 Specific end use(s)

Keep container tightly sealed.

Refrigerate

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:

The product does not contain any relevant quantities of materials with critical values that have to be monitored

at the workplace. No data

Additional information:

8.2 Exposure controls

Personal protective equipment
General protective and hygienic measures

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.

and varies from manufacturer to manufacturer.

Material of gloves Penetration time of glove material

Body protection:

Eye protection:

Impervious gloves Not determined Safety glasses Face protection Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance: Form: Colour:

Powder White to off-white Not determined Odour threshold: Not determined pH-value: Not applicable.

Change in condition

Change in condition
Melting point/Melting range:
Boiling point/Boiling range:
Sublimation temperature / start:
Inflammability (solid, gaseous)
Ignition temperature:
Decomposition temperature:
Self-inflammability:
Critical values for explosion:
Lower: Not determined Not determined Not determined Not determined. Not determined Not determined Not determined.

Not determined Not determined Lower: Upper: Steam pressure: Not applicable. Not determined Density Relative density Not determined. Vapour density Evaporation rate Not applicable. Not applicable. Solubility in / Miscibility with

Water: Partition coefficient (n-octanol/water):

Viscosity: dynamic: kinematic:

Not applicable. Not applicable.

Not determined Not determined.

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Trade name *Tobramycin sulfate*

9.2 Other information No further relevant information available

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:

10.6 Hazardous decomposition products:

No information known. Stable under recommended storage conditions.

No decomposition if used and stored according to specifications. Reacts with strong oxidizing agents

Oxidizing agents **H**eat

Carbon monoxide and carbon dioxide Sulphur oxides (SOx) Nitrogen oxides (NOx)

Harmful if swallowed.

No data

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.

or ACGIH. No effects known.

No effects known.

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

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.

Causes skin irritation.
Causes serious eye irritation.
No sensitizing effect known.
No effects known.
No effects known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA

Avoid transfer into the environment.

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

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.

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

UN-Number ADR, ADN, IMDG, IATA

Not applicable

14.2 UN proper shipping name ADR, ADN, IMDG, IATA

14.3 Transport hazard class(es)

ADR, ADN, 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

UN "Model Regulation":

Not applicable. Code

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

Drugs and Poisons

Substance is not listed. Substance is not listed.

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. Other regulations, limitations and prohibitive regulations

ELINCS (European List of Notified Chemical Substances)

Substances of very high concern (SVHC) according to REACH, Article 57

Substance is not listed.

Substance is not listed. (Contd. on page 4)

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REACH - Pre-registered substances 15.2 Chemical safety assessment: Substance is 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:
Abbreviations and acronyms:

Health, Safety and Environmental Department.

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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

LC50: Lethal concentration, 50 percent

DE/E