E-mail: gcat@matthey.com www.alfa-chemcat.com

Printing date 14.07.2010 Revision: 14 07 2010

1 Identification of substance

Product details

Trade name Tetra-n-hexylammonium hydrogen sulfate

Stock number:

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

Not applicable

Void

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#)

Tetra-n-hexylammonium hydrogen sulfate (CAS# 32503-34-7); 100%

Identification number(s): EINECS Number:

251-069-0

4 First aid measures

After inhalation 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.

Seek immediate medical advice.

After eye contact After swallowing

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

5 Fire fighting measures

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

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

Protective equipment:

Can be released in case of fire: Carbon monoxide and carbon dioxide Sulphur oxides (SOx) Nitrogen oxides (NOx) Wear self-contained breathing apparatus.

Wear full protective suit.

6 Accidental release measures

Person-related safety precautions:

Measures for environmental protection: Measures for cleaning/collecting:

Additional information:

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 material to be released to the environment wants. Collect mechanically.

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

Handling Information for safe handling:

Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. No special precautions necessary if used correctly.

Information about protection against

explosions and fires:

No special measures required.

Storage Requirements to be met by storerooms and

containers: Information about storage in one common

storage facility:

No special requirements.

Store away from oxidizing agents. Store away from water.

Further information about storage conditions:

This product is hygroscopic. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

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.

Not required.

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

Personal protective equipment General protective and hygienic measures

No data

The usual precautionary measures should be adhered to in handling the chemicals. Reep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Use breathing protection with high concentrations.
Safety glasses
Protective work clothing.

Breathing equipment: Eye protection: Body protection:

General Information

9 Physical and chemical properties:

Crystalline powder White Form: Colour: Smell: Not determined

(Contd. on page 2)

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

Printing date 14.07.2010 Revision: 14.07.2010

Trade name	Tetra-n-hex	ylammonium i	hydrogen	sulfate
------------	-------------	--------------	----------	---------

		(Contd. of page 1)
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	99-101°C Not determined Not determined	
Flash point:	Not applicable	
Inflammability (solid, gaseous)	Product is not inflammable.	
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	Not determined	

10 Stability and reactivity

Thermal decomposition / conditions to be

avoided:

Materials to be avoided:

Dangerous reactions:

Dangerous products of decomposition:

No decomposition if used and stored according to specifications.

Oxidizing agents Water/moisture

No dangerous reactions known

Carbon monoxide and carbon dioxide Sulphur oxides (SOx)

Nitrogen oxides (NOx)

11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin:

on the eve:

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

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.

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 No

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:

Information about limitation of use:

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

For use only by technically qualified individuals.

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

Abbreviations and acronyms:

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 Transport of Dangerous Goods by Rail)

RID: Ridmentional 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)