Material Safety Data Sheet According to OSHA and ANSI

Printing date 04/18/2011

Reviewed on 04/15/2011

1 Identification of the substance/mixture and of the company/undertaking Product identifier Product name: Sodium taurocholate hydrate Stock number: A18346 CAS Number: 345909-26-4 EINECS Number: 205-653-7 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, A Johnson Matthey Company Johnson Matthey Catalog Company, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Emergency Phone: (978) 521-6300 CHEMTREC: (800) 424-9300 Web Site: www.alfa.com Information Department: Health, Safety and Environmental Department Emergency telephone number: During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300. 2 Hazards identification Classification of the substance or mixture The substance is not classified according to the Globally Harmonized System (GHS). Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable Information concerning particular hazards for human and environment: Not applicable Label elements Labelling according to EU guidelines: Observe the general safety regulations when handling chemicals Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) HEALTH 1 Health (acute effects) = 1 Flammability = 1FIRF 1 Reactivity = 1REACTIVITY 1 Other hazards Results of PBT and vPvB assessment **PBT:** Not applicable. vPvB: Not applicable. 3 Composition/information on ingredients Chemical characterization: Substances (CAS#) Description: Sodium taurocholate hydrate (CAS# 345909-26-4) Identification number(s): EINECS Number: 205-653-7 4 First aid measures Description of first aid measures After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. After skin contact Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice. After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor. After swallowing Seek medical treatment. Information for doctor

Most important symptoms and effects, both acute and delayed No further relevant information available.

(Contd. on page 2)

USA

Material Safety Data Sheet According to OSHA and ANSI

Printing date 04/18/2011

Reviewed on 04/15/2011

Product name: Sodium taurocholate hydrate

Indication of any immediate medical attention and special treatment needed No further relevant information available.

(Contd. of page 1)

5 Firefighting measures

Extinguishing media Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture In case of fire, the following can be released: Carbon monoxide and carbon dioxide Nitrogen oxides (NOX) Sodium oxide Sulfur oxides (SOX) Possibly Hydrogen cyanide (HCN) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Environmental precautions:
Do not allow material to be released to the environment without proper governmental permits.
Methods and material for containment and cleaning up: Pick up mechanically.
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 disposal information.

7 Handling and storage

Handling Precautions for safe handling Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Information about protection against explosions and fires: Keep ignition sources away. Conditions for safe storage, including any incompatibilities

Storage
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Store away from oxidizing agents.
Further information about storage conditions:
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 limit values that require monitoring at the workplace: Not required. Additional information: No data Exposure controls

Personal protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: Impervious gloves Check protective gloves prior to each use for their proper condition.

(Contd. on page 3)

USA

Material Safety Data Sheet

According to OSHA and ANSI

Printing date 04/18/2011

Reviewed on 04/15/2011

Product name: Sodium taurocholate hydrate

Material of gloves

(Contd. of page 2)

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. Eye protection: Safety glasses Body protection: Protective work clothing.

9 Physical and chemical properties

y mybrear and enemiear propercies	
Information on basic physical and chemical General Information	properties
Appearance:	Character 11 June
Form:	Crystalline
Color:	White
Odor:	Not determined
Odour threshold:	Not determined.
pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flammability (solid, gaseous)	Not determined.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Auto igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not applicable.
Density:	Not determined
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Soluble
Segregation coefficient (n-octonol/water):	Not determined.
Viscosity:	
dynamic:	Not applicable.
kinematic:	
	Not applicable. No further relevant information available.

10 Stability and reactivity

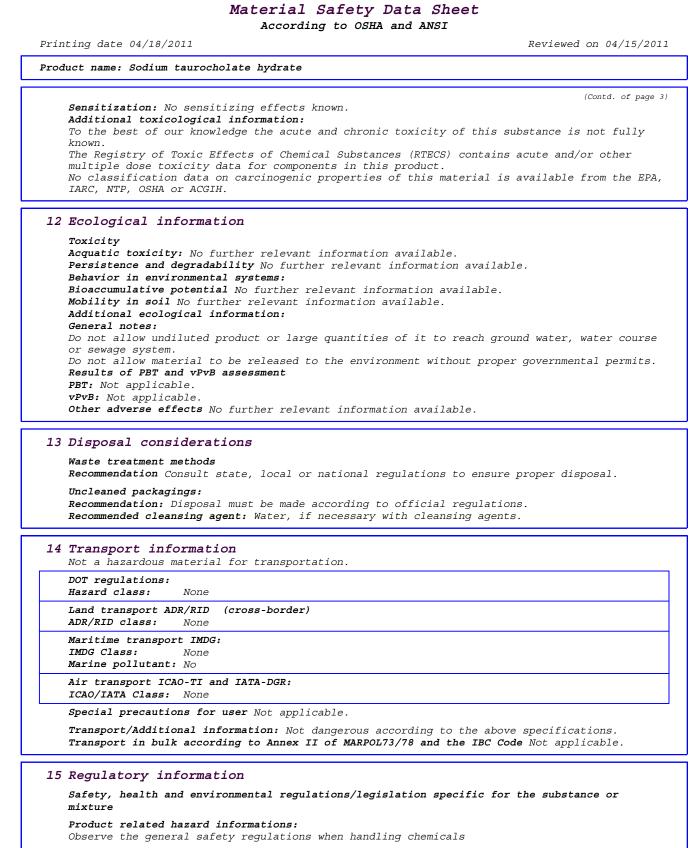
Reactivity Chemical stability Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Possibility of hazardous reactions No dangerous reactions known Incompatible materials: Oxidizing agents Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides Sodium oxide Sulfur oxides (SOX) Possibly Hydrogen cyanide (HCN)

11 Toxicological information

Information on toxicological effects Acute toxicity: Primary irritant effect: on the skin: May cause irritation on the eye: May cause irritation

(Contd. on page 4)

USA



National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).

Information about limitation of use: For use only by technically qualified individuals. (Contd. on page 5)

Material Safety Data Sheet According to OSHA and ANSI

Printing date 04/18/2011

Reviewed on 04/15/2011

Product name: Sodium taurocholate hydrate

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

(Contd. of page 4)

USA

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 MSDS: Health, Safety and Environmental Department. Contact:

Zachariah C. Holt Global EHS Manager 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) RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation DOT: US Department of Transportation TATA: International Air Transport Association 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) EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA)