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

1.1 Product identifier

Trade name: Sodium hydrosulfite, technical grade

Stock number: 33381

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use: SU24 - Scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Thermo Fisher (Kandel) GmbH
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: Product safety Tel + +049 (0) 7275 988687-0

1.4 Emergency telephone number:
Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)
Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 flame
Self-heat. 1, H251 Self-heating: may catch fire.

GHS07
Acute Tox. 4, H302 Harmful if swallowed.

Other hazards that do not result in classification

No information known.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms

GHS02 GHS07

Signal word Danger

Hazard-determining components of labelling:

Sodium hydrosulfite

Hazard statements

H251 Self-heating: may catch fire.
H302 Harmful if swallowed.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P235+P410 Keep cool. Protect from sunlight.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P330 Rinse mouth.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P420 Store away from other materials.
P467 Maintain air gap between stacks/pallets.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:
EUH031 Contact with acids liberates toxic gas.
Safety data sheet according to 1907/2006/EC, Article 31

Trade name Sodium hydrosulfite, technical grade

4.2 Most important symptoms and effects, both acute and delayed Harmful if swallowed.
4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents: In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
For safety reasons unsuitable extinguishing agents: Water.
5.2 Special hazards arising from the substance or mixture;
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Sulphur oxides (SOx)
Sodium oxide
Hydrogen chloride (HCl)
Hydrogen sulphide
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
Put on breathing apparatus.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
6.2 Environmental precautions:
Do not allow material to be released to the environment without proper governmental permits.
6.3 Methods and material for containment and cleaning up:
Dispose of contaminated material as waste according to section 13.
Do not flush with water or aqueous cleansing agents.
Prevention of secondary hazards: No special measures required.
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
Handle under protective gas.
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: Protect from humidity and keep away from water.
7.2 Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and containers: No special requirements.
Information about storage in one common storage facility:
Do not store with organic materials.
Store away from metal powders.
Do not store together with acids.
Store away from oxidising agents.
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems:
Property 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:
7775-14-6 Sodium hydrosulfite (88,0%)
MAK (Germany) vgl. Abschn. IV
Additional information: No data
8.2 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.
Immediately remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use breathing protection with high concentrations.
Recommended filter device for short term use:
Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protection of hands:
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.
Material of gloves Nitrile rubber, NBR
Penetration time of glove material (in minutes) >480
Glove thickness 0.11 mm
Eye protection: Safety glasses
Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance: Powder
Odour: Pungent
Odour threshold: Not determined.
PH-value: Not applicable.

(Contd. on page 3)
SECTION 10: Stability and reactivity

10.1 Reactivity
May cause fire.
Contact with acids liberates toxic gas.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Heating occurs when water is added
Self igniting
React with strong acids and oxidizing agents
React with strong oxidizing agents
Contact with acids liberates toxic gas.

10.4 Conditions to avoid
No further relevant information available.

10.5 Incompatible materials:
Oxidising agents
Acids
Organic materials
Metal powders

10.6 Hazardous decomposition products:
Sulphur oxides (SOx)
Sodium oxide
Hydrogen sulphide
Carbon monoxide and carbon dioxide
Hydrogen chloride (HCl)

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity:
Harmful if swallowed.
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.

LD/LC50 values that are relevant for classification: No data
Skin irritation or corrosion: Irritant for skin and mucous membranes.
Eye irritation or corrosion: Irritant effect.
Sensitization: No sensitizing effect known.

Germ cell mutagenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for components in this product.
Carcinogenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for components in this product.
Specific target organ system toxicity - repeated exposure: No effects known.
Specific target organ system toxicity - single exposure: No effects known.
Aspiration hazard: No effects known.

Subacute to chronic toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.

Additional toxicological information:
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.

12.4 Mobility in soil
No further relevant information available.

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 to reach ground water, water course or sewage system.
Avoid transfer into the environment.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects
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.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

UN-Number: UN1384

14.2 UN proper shipping name
ADR, IMDG, IATA 1384 SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

14.3 Transport hazard class(es)
ADR

Class Label 4.2 Substances liable to spontaneous combustion.

IMDG, IATA 4.2

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
Kemler Number: 40
EMS Number: F-A,S-J

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

Transport/Additional information:
ADR

Excepted quantities (EQ): E2
Transport category 2
Tunnel restriction code D/E

UN "Model Regulation": UN1384, SODIUM DITHIONITE (SODIUM HYDROSULPHITE), 4.2, II

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Australian Inventory of Chemical Substances
All ingredients are listed.

Standard for the Uniform Scheduling of Medicines and Poisons (S5)
7775-14-6 Sodium hydrosulfite

NATIONAL REGULATIONS:

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

ELINCS (European List of Notified Chemical Substances)
None of the ingredients is listed.

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.
None of the ingredients is listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.
None of the ingredients is listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)
None of the ingredients is listed.

15.2 Chemical safety assessment: 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.

Relevant phrases:
H251 Self-heating: may catch fire.
H302 Harmful if swallowed.

Department issuing SDS: Global Marketing Department

Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
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 Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
GASP: Chemical Abstracts Service (division of the American Chemical Society)
VfE: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
LC50: Lethal concentration, 50 percent.

(Contd. on page 5)
**Trade name Sodium hydrosulfite, technical grade**

LD50: Lethal dose, 50 percent  
vPvB: very Persistent and very Bioaccumulative  
ACGIH: American Conference of Governmental Industrial Hygienists (USA)  
OSHA: Occupational Safety and Health Administration (USA)  
NTP: National Toxicology Program (USA)  
IARC: International Agency for Research on Cancer  
EPA: Environmental Protection Agency (USA)  
Self-heat. 1: Self-Heating Substances and Mixtures, Hazard Category 1  
Acute Tox. 4: Acute toxicity, Hazard Category 4