

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name

**Tin(II) methanesulfonate, 50% w/w aqueous solution**

Stock number:

H59773

**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:

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:

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



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

C; Corrosive

R34: Causes burns.

Xn; Harmful

R22: Harmful if swallowed.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Other hazards that do not result in classification**

No information known.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008**

Hazard pictograms

Signal word

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

GHS05, GHS07, GHS09

Danger

**Hazard-determining components of labelling:**

Hazard statements

tin(II) methanesulphonate

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P405

Store locked up.

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

regulations.

**Precautionary statements****2.3 Other hazards**

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Dangerous components:**

CAS: 53408-94-9

tin(II) methanesulphonate

50,0%

ELINCS: 401-640-7

C R34; Xn R22; Xi R43; N R51/53

Skin Corr. 1B, H314; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Skin Sens. 1, H317

**Additional information**

None known.

**Non-Hazardous Ingredients**

CAS: 7732-18-5

Water

50,0%

EINECS: 231-791-2

**SECTION 4: First aid measures****4.1 Description of first aid measures**

General information

Instantly remove any clothing soiled by the product.

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<b>After inhalation</b>	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
<b>After skin contact</b>	Seek immediate medical advice. Instantly wash with water and soap and rinse thoroughly.
<b>After eye contact</b>	Seek immediate medical advice.
<b>After swallowing</b>	Rinse opened eye for several minutes under running water. Then consult doctor.
<b>4.2 Most important symptoms and effects, both acute and delayed</b>	Seek medical treatment.
<b>4.3 Indication of any immediate medical attention and special treatment needed</b>	No further relevant information available.

**SECTION 5: Firefighting measures**

<b>5.1 Extinguishing media</b> <b>Suitable extinguishing agents</b>	CO <sub>2</sub> , extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
<b>5.2 Special hazards arising from the substance or mixture</b>	If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide Sulphur oxides (SO <sub>x</sub> ) Metal oxide
<b>5.3 Advice for firefighters</b> <b>Protective equipment:</b>	Wear self-contained breathing apparatus. Wear full protective suit.

**SECTION 6: Accidental release measures**

<b>6.1 Personal precautions, protective equipment and emergency procedures</b>	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
<b>6.2 Environmental precautions:</b>	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.
<b>6.3 Methods and material for containment and cleaning up:</b>	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation.
<b>Prevention of secondary hazards:</b>	No special measures required.
<b>6.4 Reference to other sections</b>	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**

<b>7.1 Precautions for safe handling</b>	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.
<b>Information about protection against explosions and fires:</b>	No information known.
<b>7.2 Conditions for safe storage, including any incompatibilities</b> <b>Storage</b> <b>Requirements to be met by storerooms and containers:</b> <b>Information about storage in one common storage facility:</b>	No special requirements. Water reacts with many metals to give hydrogen, often violently. Water also reacts violently with many reactive organic and inorganic chemicals.
<b>Further information about storage conditions:</b>	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Store in a locked cabinet or with access restricted to technical experts or their assistants.
<b>7.3 Specific end use(s)</b>	No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

<b>Additional information about design of technical systems:</b>	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
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**8.1 Control parameters**
**Components with critical values that require monitoring at the workplace:**
**53408-94-9 tin(II) methanesulphonate (50,0%)**

MAK (Germany)	0,1 E mg/m <sup>3</sup> als Sn berechnet
MAK (TRGS 900) (Germany)	0,1 E mg/m <sup>3</sup> DFG, H, 25
PEL (USA)	0,1 mg/m <sup>3</sup> as Sn
REL (USA)	0,1 mg/m <sup>3</sup> as Sn, Skin
TLV (USA)	Short-term value: 0,2 mg/m <sup>3</sup> Long-term value: 0,1 mg/m <sup>3</sup> as Sn; Skin

**Additional information:** No data

**8.2 Exposure controls**

<b>Personal protective equipment</b> <b>General protective and hygienic measures</b>	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. Do not inhale dust / smoke / mist. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment.
<b>Breathing equipment:</b>	Use breathing protection with high concentrations.
<b>Protection of hands:</b>	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.
<b>Material of gloves</b>	Impervious gloves

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**Penetration time of glove material:** Not determined  
**Eye protection:** Tightly sealed safety glasses.  
**Body protection:** Full face protection  
 Protective work clothing.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information****Appearance:**

**Form:** Liquid  
**Colour:** Colourless  
**Smell:** Not determined  
**Odour threshold:** Not determined.

**pH-value:** Not determined.

**Change in condition**

**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** Not determined  
**Sublimation temperature / start:** Not determined  
**Inflammability (solid, gaseous):** Not determined.  
**Ignition temperature:** Not determined  
**Decomposition temperature:** Not determined  
**Self-inflammability:** Product is not selfigniting.

**Critical values for explosion:**

**Lower:** Not determined  
**Upper:** Not determined

**Steam pressure at 20 °C:**

23 hPa

**Density at 20 °C:** 1,55 g/cm<sup>3</sup>

**Relative density:** Not determined.

**Vapour density:** Not determined.

**Evaporation rate:** Not determined.

**Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**dynamic:** Not determined.

**kinematic:** Not determined.

**Solvent content:**

**Organic solvents:** 0,0 %

**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.  
 Water reacts violently with alkali metals.  
 Water reacts with many metals to give hydrogen, often violently. Water is also incompatible with many reactive organic and inorganic chemicals.  
 Carbon monoxide and carbon dioxide  
 Sulphur oxides (SO<sub>x</sub>)  
 Metal oxide

**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:**

Harmful if swallowed.  
 Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.  
 No data  
 Causes severe skin burns.  
 Causes serious eye damage.  
 May cause an allergic skin reaction.  
 No effects known.  
 ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals.  
 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.  
 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  
 Corrosive  
 Irritant

**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:****12.2 Persistence and degradability****12.3 Bioaccumulative potential****12.4 Mobility in soil****Additional ecological information:****General notes:****12.5 Results of PBT and vPvB assessment****PBT:**

No further relevant information available.  
 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.  
 Also poisonous for fish and plankton in water bodies.  
 Toxic to aquatic life.  
 May cause long lasting harmful effects to aquatic life.  
 Avoid transfer into the environment.  
 Not applicable.

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

Revision: 10.12.2012

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Trade name **Tin(II) methanesulfonate, 50% w/w aqueous solution**

vPvB: 12.6 Other adverse effects	Not applicable. No further relevant information available.	(Contd. of page 3)
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**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**

<b>UN-Number</b> ADR, IMDG, IATA	UN3265
<b>14.2 UN proper shipping name</b> ADR	3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (tin(II) methanesulphonate)
<b>IMDG</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (tin(II) methanesulphonate), MARINE POLLUTANT
<b>IATA</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (tin(II) methanesulphonate)
<b>14.3 Transport hazard class(es)</b> ADR	
	
<b>Class</b> <b>Label</b> <b>IMDG</b>	8 (C3) Corrosive substances. 8
 	
<b>Class</b> <b>Label</b> <b>IATA</b>	8 Corrosive substances. 8
	
<b>Class</b> <b>Label</b>	8 Corrosive substances. 8
<b>Packing group</b> ADR, IMDG, IATA	III
<b>14.5 Environmental hazards:</b> <b>Marine pollutant:</b>	Symbol (fish and tree)
<b>14.6 Special precautions for user</b> <b>Kemler Number:</b> <b>EMS Number:</b> <b>Segregation groups</b>	Warning: Corrosive substances. 80 F-A,S-B Acids
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR</b>	
<b>Excepted quantities (EQ):</b> <b>Limited quantities (LQ)</b> <b>Transport category</b> <b>Tunnel restriction code</b>	E1 5L 3 E
<b>UN "Model Regulation":</b>	UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (tin(II) methanesulphonate), 8, III

**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 Drugs and Poisons**

None of the ingredients is listed.

**National regulations****Information about limitation of use:**

Employment restrictions concerning young persons must be observed.  
For use only by technically qualified individuals.

**Classification according to VbF:**

Not applicable

**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)**

None of the ingredients is listed.

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

None of the ingredients are listed.

**REACH - Pre-registered substances**

All ingredients are 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**

H302 Harmful if swallowed.

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DE/E

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

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Revision: 10.12.2012

Trade name **Tin(II) methanesulfonate, 50% w/w aqueous solution**

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H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H411 Toxic to aquatic life with long lasting effects.  
 R22 Harmful if swallowed.  
 R34 Causes burns.  
 R43 May cause sensitisation by skin contact.  
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**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)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
 VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent

DE/E