SECTION 1: Identification of the substance/mixture and of the company/undertaking **1.1 Product identifier** Trade name 4-tert-ButyIthiobenzamide Stock number: 90300 CAS Number: 57774-77-3 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: Aaron Chemistry GmbH Am Fischweiher 41-43 D-82481 Mittenwald **Aaron** Chemiste Germany Telephone: +49-8823-917521 ORGANIC CHEMISTRY Fax: +49-8823-917523 email: info@aaron-chemistry.de Emergency telephone number 1.4 :+49-8823-917521 SECTION 2: Hazards identification 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 ! GHS07 Acute Tox. 4 H302 Harmful if swallowed. Skin Irrit. 2 H315 Causes skin irritation. Eve Irrit, 2 H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation. Classification according to Directive 67/548/EEC or Directive 1999/45/EC 🗙 Xn; Harmful R22: Harmful if swallowed. 🗙 Xi; Irritant R36/37/38: Irritating to eyes, respiratory system and skin. Information concerning particular hazards for human and environment: Not applicable Other hazards that do not result in classification No information known. 2.2 Label elements Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation. Hazard pictograms GHS07 Signal word Warning Hazard statements H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P405 Store locked up. P501 Disperse of controls (contained in a control of controls of cont P501 Dispose of contents/container in accordance with local/regional/national/international regulations. 2.3 Other hazards Results of PBT and vPvB assessment PBT: Not applicable vPvB: Not applicable SECTION 3: Composition/information on ingredients 3.1 Substances CAS# Designation: 57774-77-3 4-tert-Butylthiobenzamide SECTION 4: First aid measures

4.1 Description of first aid measures After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. Seek immediate medical advice.

After skin contact

Instantly 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 doctor. After swallowing Seek medical treatment. 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available. 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 CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

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 Nitrogen oxides (NOx) Sulphur oxides (SOx)
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
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. Ensure adequate ventilation. Prevention of secondary hazards: No special measures required. 64 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 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: No information known. 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: 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: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

| Property operating chemical furne hood designed for hazardous chemicals and having an average face velocity of at least rob leet per minute. |
|---|
| 8.1 Control parameters Components with critical values that require monitoring at the workplace: Not required. 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. 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. Breathing equipment: Use breathing protection with high concentrations. |
| 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 Impervious gloves Penetration time of glove material (in minutes) Not determined |
| Eye protection: Safety glasses |

Safety glasses

| Face protection Body protection: Protective work cloth | ning. | | | | |
|--|---|--|--|--|--|
| SECTION 9: Physical and chemical properties | | | | | |
| 9.1 Information on basic physical and General Information Appearance: | | | | | |
| Form: Colour: Smell: Odour threshold: | Crystalline powder Yellow Not determined Not determined. | | | | |
| pH-value: | Not applicable. | | | | |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: | 145-149 °C Not determined Not determined | | | | |
| Flash point: Inflammability (solid, gaseous) Ignition temperature: Decomposition temperature: Self-inflammability: | Not applicable Not determined. Not determined Not determined Not determined. | | | | |
| Danger of explosion: Critical values for explosion: Lower: Upper: Steam pressure: Density Relative density Vapour density Evaporation rate | Product is not explosive. Not determined Not determined Not applicable. Not determined Not determined. Not applicable. Not applicable. | | | | |
| | | | | | |

| Solubility in / Miscibility with | |
|---|--|
| Water: | Insoluble |
| Partition coefficient (n-octanol/water) | : Not determined. |
| Viscosity: | |
| dynamic: | Not applicable. |
| kínematic: | Not applicable. |
| 9.2 Other information | No further relevant information available. |
| | |

SECTION 10: Stability and reactivity

10.1 Reactivity No information known.
10.2 Chemical stability Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions No dangerous reactions known
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials: Oxidising agents

10.6 Hazardous decomposition products:

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

SECTION 11: Toxicological information

11.1 Information on toxicological information
11.1 Information on toxicological effects
Acute toxicity: Harmful if swallowed.
LD/LC50 values that are relevant for classification: No data
Skin irritation or corrosion: Causes skin irritation.
Eye irritation or corrosion: Causes serious eye irritation.
Sensitization: No sensitizing effect known.
Germ cell mutagenicity: No effects known.
Carcinogenicity: No effects known.
Specific target organ system toxicity - repeated exposure: No effects known.
Specific target organ system toxicity - single exposure: May cause respiratory irritation. Specific target organ system toxicity - single exposure: May cause respiratory irritation. Aspiration hazard: No effects known. Additional toxicological information: 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 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. **Recommendation:** Disposal must be made according to official regulations

SECTION 14: Transport information

| UN-Number ADR, IMDG, IATA | None | |
|--|--|--|
| 14.2 UN proper shipping name ADR, IMDG, IATA | None | |
| 14.3 Transport hazard class(es) | | |
| ADR, IMDG, IATA Class | None | |
| Packing group ADR, IMDG, IATA | None | |
| 14.5 Environmental hazards: | Not applicable. | |
| 14.6 Special precautions for user | Not applicable. | |
| 14.7 Transport in bulk according to Annex II of MARPOL73/78 and Code | the IBC Not applicable. | |
| Transport/Additional information: | Not dangerous according to the above specifications. | |

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Australian Inventory of Chemical Substances Substance is not listed. Standard for the Uniform Scheduling of Drugs and Poisons 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) Substance is not listed. Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing of the market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not 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 produ not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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