

1 Identification



Product identifier Product name: S-n-Propyl thioacetate Stock number: B21875 **CAS Number:** 2307-10-0 EC number: 218-984-7 Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development Details of the supplier of the safety data sheet Manufacturer/Supplier: Alfa Aesar Thermo Fisher Scientific Chemicals, Inc. Inerrito Fisher Scheman C. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757 Email: tech @alfa.com www.alfa.com Information Department: Health, Safety and Environmental Department Emergency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789. 2 Hazard(s) identification Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) * GHS02 Flame Flam. Liq. 3 H226 Flammable liquid and vapour. Hazards not otherwise classified No information known. Label elements GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms GHS02 Signal word Warning Hazard statements H226 Flammable liquid and vapour. Precautionary statements

 P210
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

 P280
 Wear protective gloves/protective clothing/eye protection/face protection.

 P240
 Ground/bond container and receiving equipment.

 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

 P403+P235
 Store in a well-ventilated place. Keep cool.

 P501
 Dispose of context input in generation on the context input in generation of context input in generation of the context input in generating the context input in generation of the context input in generat Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification Not controlled Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1
 RE
 Image: Flammability = 2

 EACTIVITY 1
 Physical Hazard = 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: 2307-10-0 S-n-Propyl thioacetate Identification number(s): EC number: 218-984-7 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. Indication of any immediate medical attention and special treatment needed No further relevant information available.

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5 Fire-fighting 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 If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide Sulfur oxides (SOx) 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 Keep away from ignition sources Environmental precautions: Do not allow material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: Netnods and material for containment and cleaning up: Keep away from ignition sources. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). **Prevention of secondary hazards:** Keep away from ignition sources. **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

Recautions for safe handling Receptions for safe handling Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. Information about protection against explosions and fires: Protect against electrostatic charges. Europe on combine with pair to form an explosive mixture. Fumes can combine with air to form an explosive mixture. 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. Maintain an ergonomically appropriate working environment

Maintain an ergonomically appropriate working environment. 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. 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

9 Physical and chemical properties			
Information on basic physical and ch General Information Appearance: Form: Color:	hemical properties Liquid Colorless		
Odor: Odor threshold:	Not determined Not determined.		
pH-value:	Not determined.		
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	Not determined 135-137 °C (275-279 °F) Not determined		
Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not determined Not determined Not determined Not determined Not determined		
Danger of explosion:	Not determined.		

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Product name: S-n-Propyl thioacetate

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Product name: S-n-Propyl thioacetate			
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Explosion limits: Lower: Upper: Vapor pressure: Density at 20 °C (68 °F): Relative density Vapor density Evaporation rate Solubility in / Miscibility with Water: Partition coefficient (n-octanol/water). Viscosity: dynamic: kinematic: Other information	Not determined Not determined Not determined 0.974 g/cm ³ (8.128 lbs/gal) Not determined. Not determined.		
10 Stability and reactivity			
Reactivity No information known. Chemical stability Stable under recommender the stability of hazardous reactions No Conditions to avoid No further relevant Incompatible materials: Oxidizing ager Hazardous decomposition products: Carbon monoxide and carbon dioxide Sulfur oxides (SOx)	nended storage conditions. o be avoided: Decomposition will not occur if used and stored according to specifications. dangerous reactions known t information available. tis		
Reproductive toxicity: No effects know Specific target organ system toxicity Specific target organ system toxicity Aspiration hazard: No effects known. Subacute to chronic toxicity: No effect	skin and mucous membranes. fect. own. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH n. - repeated exposure: No effects known. - single exposure: No effects known.		
12 Ecological information			
Toxicity Aquatic toxicity: No further relevant inf Persistence and degradability No furth Bioaccumulative potential No further r Mobility in soil No further relevant infor Additional ecological information: General notes:	rer relevant information available. elevant information available. mation available. he environment without proper governmental permits. yuantities to reach ground water, water course or sewage system. t		
13 Disposal considerations			
Waste treatment methods Recommendation Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.			
14 Transport information			
UN-Number DOT, IMDG, IATA	UN3272		
UN proper shipping name DOT	Esters, n.o.s. (S-n-Propyl thioacetate) ESTERS, N.O.S. (S-n-Propyl thioacetate)		
IMDG, IATA Transport hazard class(es)	ESTERS, N.U.S. (S-n-Propyl thioacetate)		
Class Label Class Label	3 Flammable liquids. 3 3 (F1) Flammable liquids 3		
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Product name: S-n-Propyl thioacetate (Contd. of page 3) IMDG, IATA 3 Flammable liquids. Class Label Packing group DOT, IMDG, IATA 111 Environmental hazards: Not applicable. Special precautions for user Warning: Flammable liquids Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport/Additional information: DOT Marine Pollutant (DOT): No UN "Model Regulation": UN3272, Esters, n.o.s. (S-n-Propyl thioacetate), 3, III 15 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms * GHS02 Signal word Warning Hazard statements H226 Flammable liquid and vapour. Precautionary statements P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P280 Wear protective gloves/protective clothing/eye protection/face protection. P240 Ground/bond container and receiving equipment. P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. National regulations National regulations All components of this product are listed on the Canadian Domestic Substances List (DSL). This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes. SARA Section 313 (specific toxic chemical listings) Substance is not listed. California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity, Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. 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Chemical safety assessment: A Chemical Safety Assessment has not been carried out. 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 SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / - Date of preparation / last revision 11/23/2015 / 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) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent VP.VB: very Persistent and very Bioaccumulative ACGIH: American Colerence of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) IAP: Netroital Toxicology Program (USA) IAP: Actional Toxicology Program (USA) IAP: Actional Toxicology Program (USA) USA