

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier Product name: 2,2,2-Trichloro-1-phenylethanol Stock number: L06694 CAS Number: 2000-43-3 EC number: 217-887-7 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) ! GHS07 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. 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 ! GHS07 Signal word Warning Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation. Precautionary statements 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. P362 Take off contaminated clothing. P321 Specific treatment (see on this label). P332+P313 If skin irritation occurs: Get medical advice/attention. P321 If skin irritation occurs: Get medical advice/attention. P321 P332+P313 P337+P313 If eye irritation persists: Get medical advice/attention. WHMIS classification D2B - Toxic material causing other toxic effects Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1Flammability = 1Physical 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: 2000-43-32,2,2-Trichloro-1-phenylethanol Identification number(s): EC number: 217-887-7 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. (Contd. on page 2)

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Product name: 2,2,2-Trichloro-1-phenylethanol			
After swallowing Seek medical treatme Information for doctor Most important symptoms and effects Indication of any immediate medical a	ent. <b>s, both acute and delayed</b> No further relevant information available. <b>attention and special treatment needed</b> No further relevant information available.	(Contd. of page 1)	
5 Fire-fighting measures Extinguishing media Suitable extinguishing agents Carbon Special hazards arising from the subs If this product is involved in a fire, the for Carbon monoxide and carbon dioxide Hydrogen chloride (HCl) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.	dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. stance or mixture llowing can be released:		
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: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Prevention of secondary hazards: No special measures required. Reference to other sections See Section 7 for information on safe handling 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. Ensure good ventilation at the workplace. Information about protection against explosions and fires: No information known. 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.			
<ul> <li>8 Exposure controls/personal protection</li> <li>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.</li> <li>Control parameters</li> <li>Components with limit values that require monitoring at the workplace: Not required.</li> <li>Additional information: No data</li> <li>Exposure controls</li> <li>Personal protective equipment</li> <li>General protective equipment</li> <li>General protective equipment in mediately.</li> <li>Wash hands before breaks and at the end of work.</li> <li>Avoid contact with the yees and skin.</li> <li>Maintain an ergonomically appropriate working environment.</li> <li>Breating equipment: Use suitable respirator when high concentrations are present.</li> <li>Protection of hands: Impervious gloves</li> <li>Check protective gloves prior to each use for their proper condition.</li> <li>The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.</li> <li>Penetration time of glove material (in minutes) Not determined</li> <li>Eye protection: Safety glasses</li> <li>Body protection: Safety glasses</li> <li>Body protection: Safety glasses</li> </ul>			
9 Physical and chemical properties			
9 Physical and chemical properties Information on basic physical and che General Information Appearance: Form: Color: Odor: Odor threshold:			
pH-value:	Not determined.		
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	Not determined 93-96 °C (199-205 °F) (0.8 mmHg) Not determined		
Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature:	Not determined Not determined Not determined Not determined	(Contd. on page 3)	

(Contd. on page 3)

## Product name: 2,2,2-Trichloro-1-phenvlethanol

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Product name: 2,2,2-Trichloro-1-ph	ienylethanol		
		(Contd. of page 2)	
Auto igniting:	Not determined.		
Danger of explosion: Explosion limits:	Product does not present an explosion hazard.		
Lower:	Not determined		
Upper: Vapor pressure:	Not determined Not determined		
Density: Relative density	Not determined Not determined.		
Vapor density	Not determined.		
Evaporation rate Solubility in / Miscibility with	Not determined.		
Water:	Not miscible or difficult to mix		
Partition coefficient (n-octanol/water) Viscosity:			
dynamic:	Not determined.		
kinematic: Other information	Not determined. No further relevant information available.		
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10 Stability and reactivity			
Reactivity No information known. Chemical stability Stable under recom	nmended storage conditions.		
Thermal decomposition / conditions Possibility of hazardous reactions No	mmended storage conditions. <b>s to be avoided:</b> Decomposition will not occur if used and stored according to specifications. No dangerous reactions known	I	
Conditions to avoid No further relevar	ant information available.	I	
Incompatible materials: Oxidizing age	vents	I	
Hazardous decomposition products: Carbon monoxide and carbon dioxide			
Hydrogen chloride (HCl)			
11 Toxicological information			
Information on toxicological effects			
Acute toxicity: No effects known. LD/LC50 values that are relevant for	r classification.		
Oral LD50 3000 mg/kg (rat)			
Skin irritation or corrosion: Causes s	skin irritation.		
Eye irritation or corrosion: Causes se Sensitization: No sensitizing effects kr	(nown.	1	
Germ cell mutagenicity: No effects kn	nown. ta on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.		
Reproductive toxicity: No effects know	own.		
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.	/ - Single exposure. No enects known.		
Subacute to chronic toxicity:			
Peripheral Nerve and Sensation - spas	ical Substances (RTECS) reports the following effects in laboratory animals: stic paralysis with or without sensory change.		
Behavioral - sleep. Behavioral - altered sleep time (includir.	ina chanae in riahtina reflex).		
Behavioral - altered sleep time (includir Behavioral - somnolence (general depr Behavioral - ataxia.	ressed activity).	1	
Related to Chronic Data - death.			
Nutritional and Gross Metabolic - weigh Lungs, Thorax, or Respiration - chronic	c pulmonary edema.		
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.		
12 Ecological information			
Toxicity			
Aquatic toxicity: No further relevant in Persistence and degradability No further	nformation available.		
<b>Bioaccumulative potential</b> No further	r relevant information available.		
Mobility in soil No further relevant info Additional ecological information:	ormation available.		
General notes:	· · · · · · · · · · · · · · · · · · ·		
Avoid transfer into the environment.	o the environment without proper governmental permits.		
Results of PBT and vPvB assessmen	nt		
PBT: Not applicable. vPvB: Not applicable.			
Other adverse effects No further relev	vant information available.		
13 Disposal considerations			
Waste treatment methods			
Recommendation Consult state, local Uncleaned packagings:	l or national regulations to ensure proper disposal.		
Recommendation: Disposal must be n	made according to official regulations.		
14 Transport information			
Not a hazardous material for transporta	ation.		
UN-Number DOT, IMDG, IATA	None		
UN proper shipping name			
DOT, IMDG, IATA	None	(2, 1) 1070 (1)	
		(Contd. on page 4)	

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Product name: 2,2,2-Trichloro-1-phenylethanol				
	(Contd. of page 3)			
Transport hazard class(es)				
DOT, ADR, IMDG, IATA Class	None			
Packing group DOT, IMDG, IATA	None			
Environmental hazards:	Not applicable.			
Special precautions for user	Not applicable.			
Transport in bulk according to Annex II of MARPOL73/78 an	id the IBC Code Not applicable.			
Transport/Additional information:	Not dangerous according to the above specifications.			
DOT Marine Pollutant (DOT):	No			
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				
GHS07				
Signal word Warning Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation. Precautionary statements P280 Wear protective gloves/protective clothing/ey P305+P351+P338 IF IN EYES: Rinse cautiously with water for s P362 Take off contaminated clothing. P321 Specific treatment (see on this label). P332+P313 If skin irritation occurs: Get medical advice/at P337+P313 If eye irritation persists: Get medical advice/at P337+P313 If eye irritation persists: Get medical advice/at National regulations All components of this product are listed in the U.S. Environmen All components of this product are listed on the Canadian Non-D SARA Section 313 (specific toxic chemical listings) Substanc California Proposition 65 Prop 65 - Chemicals known to cause cancer 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, and Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Substance of Very High Concern (SVHC) according to the R The conditions of restrictions according to Article 67 and Am market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisati Chemical safety assessment: A Chemical Safety Assessment	several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. ttention. attention. htal Protection Agency Toxic Substances Control Act Chemical substance Inventory. Domestic Substances List (NDSL). http://www.ace.is.not.listed. http://www.ace.is.not.listed. ted. d. ly qualified individuals. REACH Regulations (EC) No. 1907/2006. Substance is not listed. nnex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the			
Information to ensure proper use and protect the health and safe conformance with this Material Safety Data Sheet, or in combina Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / -	other information gathered by them, and should make independent judgement of suitability of this ety of employees. This information is furnished without warranty, and any use of the product not in ation with any other product or process, is the responsibility of the user. ation with any other concerning the International Transport of Dangerous Goods by Rail) (IATA) AO)			
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) LCS0: Lethal concentration, 50 percent DS0: Lethal dose, 50 percent VPUB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) 0SHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) INTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)				

EPA: Environmental Protection Agency (USA)

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