

## Safety Data Sheet per OSHA HazCom 2012

per OSHA HazCom 2012 Pi Re	rinting date 11/24/2015 eviewed on 07/17/2014
1 Identification Product identifier	
Product name: Tricyclodecan-9-yl xanthogenate potassium salt	
Stock number: J63015 CAS Number: 83373-60-8 EC number: 280-379-9 Relevant identified uses of the substance or mixture and uses advised against.	
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 Theme Eicher Scientific Chemicals, Inc.	
Thermo Fisher Scientific Chemicals, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660	
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 Acute Tox. 4 H302 Harmful if swallowed. 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 H302 Harmful if swallowed. Precautionary statements P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor//if you feel unwell. P300 Rinse mouth. P501 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) = 2	
FIRE     IF lammability = 1       REACTIVITY     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: 83373-60-8 Tricyclodecan-9-yl xanthogenate potassium salt Identification number(s): EC number: 280-379-9	
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.	
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 fo	am

Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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## Product name: Tricyclodecan-9-yl xanthogenate potassium salt

Special hazards arising from the subs If this product is involved in a fire, the fol Carbon monoxide and carbon dioxide Sulfur oxides (SOx) Potassium oxide Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.	stance or mixture lowing can be released:			
6 Accidental release measures Personal precautions, protective equi Wear protective equipment. Keep unpro Ensure adequate ventilation Environmental precautions: Do not all Methods and material for containmen Prevention of secondary hazards: No Reference to other sections See Section 7 for information on safe ha See Section 13 for disposal information.	tected persons away. To a ow product to reach sewage system or any water course. <b>t and cleaning up:</b> Dispose of contaminated material as waste according to section 13. special measures required. andling			
7 Handling Precautions for safe handling Keep container tightly sealed. 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: Store in freezer (-20 °C). Information about storage in one common storage facility: Protect from heat. Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. Specific end use(s) No further relevant information available.				
8 Exposure controls/personal protection Additional information about design of technical systems: Properly operating chemical tume 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: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. Additional information: No data Exposure controls Personal protective equipment General 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. Breathing equipment: Use suitable respirator when high concentrations are present. Protective of lowes prior to each use for their proper condition. The selection 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. Protection: Safety glasses Body protective: Protective work clothing.				
9 Physical and chemical properties				
Information on basic physical and che General Information Appearance: Form: Color: Odor: Odor threshold:				
 pH-value:	Not applicable.			
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not determined Not determined Not determined Not determined. Not determined Not determined Not determined Not determined.			
Danger of explosion: Explosion limits: Lower: Upper: Vapor pressure: Density: Relative density Vapor density Evaporation rate	Not determined Not determined Not determined Not applicable. Not determined Not determined. Not applicable. Not applicable. Not applicable.			

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Product name: Tricyclodecan-9-yl xanthogenate potassium salt			
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Solubility in / Miscibility with Water:	Slightly soluble		
Water: Partition coefficient (n-octanol/water) Viscosity:	: Not determined.		
dynamic: kinematic:	Not applicable. Not applicable.		
Other information	No further relevant information available.		
10 Stability and reactivity			
Reactivity No information known			
Chemical stability Stable under recome Thermal decomposition / conditions t	nended storage conditions. <b>o be avoided:</b> Decomposition will not occur if used and stored according to specifications.		
Possibility of hazardous reactions Re Conditions to avoid No further relevant	acis with strong oxidizing adents		
Incompatible materials: Oxidizing agents			
Heat Hazardous decomposition products:			
Carbon monoxide and carbon dioxide Sulfur oxides (SOx)			
Potassium oxide			
11 Toxicological information			
Information on toxicological effects Acute toxicity: Harmful if swallowed.			
LD/LC50 values that are relevant for o	lassification:		
Oral LD50 1500 mg/kg (rat) Skin irritation or corrosion: May cause	e irritation		
Skin irritation or corrosion: May cause Eye irritation or corrosion: May cause Sensitization: No sensitizing effects kno	irritation own		
Germ cell mutagenicity: No effects kno	om: on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.		
Reproductive toxicity: No effects know	m.		
Specific target organ system toxicity	<ul> <li>repeated exposure: No effects known.</li> <li>single exposure: No effects known.</li> </ul>		
Aspiration hazard: No effects known. Subacute to chronic toxicity: No effect	ts known.		
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 information available.		
Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information available. Bioaccumulative potential No further relevant information available.			
Mobility in soil No further relevant infor Additional ecological information:	mation available.		
General notes: Do not allow undiluted product or large of	quantities to reach ground water, water course or sewage system.		
Avoid transfer into the environment. Results of PBT and vPvB assessmen			
<b>PBT:</b> Not applicable. <b>vPvB:</b> Not applicable.			
Other adverse effects No further releva	Int information available.		
13 Disposal considerations			
Waste treatment methods	or national regulations to ensure proper disposal.		
Uncleaned packagings:			
<b>Recommendation:</b> Disposal must be m			
14 Transport information UN-Number			
DOT, ADN, IMDG, IATA	Not applicable		
UN proper shipping name DOT, ADN, IMDG, IATA	Not applicable		
Transport hazard class(es)			
DOT, ADR, ADN, IMDG, IATA Class	Not applicable		
Packing group DOT, IMDG, IATA	N=4 1' 1		
Environmental hazards:	Not applicable Not applicable.		
Special precautions for user	Not applicable.		
	II of MARPOL73/78 and the IBC Code Not applicable.		
Transport/Additional information: DOT			
Marine Pollutant (DOT):	No		
UN "Model Regulation":			
15 Regulatory information			
Safety, health and environmental reg	ulations/legislation specific for the substance or mixture		
aper elements The product IS Clas	ssified and labeled in accordance with 29 CFR 1910 (OSHA HCS)	(Contd. on page 4)	

Product name: Tricyclodecan-9-yl xanthogenate potassium salt

Hazard pictograms

1 GHS07

Signal word Warning Hazard statements H302 Harmful if swallowed. 

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 Precautionary statements

 P264
 Wash thoroughly after handling.

 P270
 Do not eat, drink or smoke when using this product.

 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.

 P330 P501 *Binse mouth.* Dispose of contents/container in accordance with local/regional/national/international regulations. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. National regulations 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. This product is not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL). SARA Section 313 (specific toxic chemical listings) Substance is not listed. 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, 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. Prop 65 - Developmental toxicity and prohibitive regulations Other regulations, limitation of use, For use only by technically qualified individuals. Other regulations, limitations and prohibitive regulations 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 on the market and use must be observed. Substance is not listed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. 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. conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the use Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / - 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) DOT: US Department of Transportation EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Sobstances CAS: Chemical Abstracts Service (division of the American Chemical Sobstances CAS: Chemical Abstracts Service (division of the American Chemical Sobstances CAS: Chemical Abstracts Service (division of the American Chemical Sobstances CAS: Chemical Abstracts Service (division of the American Chemical Sobstances CAS: Chemical Abstracts Service (division of the American Chemical Sobstances CAS: Chemical Abstracts Service (division of the American Chemical Sobiety) HMIS: Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent VPWB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) MTP: National Toxicology (USA) MTP: National Toxicology

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USA