

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier Product name: Carbenoxolone disodium salt Stock number: J63714 CAS Number: 7421-40-1 EC number: 231-044-0

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. STOT SE 3 H335 May cause respiratory 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. H335 May cause respiratory irritation. 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. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P405 WHMIS classification D2B - Toxic material causing other toxic effects Ţ



Health (acute effects) = 1Flammàbility = 1 TIVITY 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: 7421-40-1 Carbenoxolone disodium salt Identification number(s): EC number: 231-044-0

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.

Product name: Carbenoxolone disodium salt (Contd. of page 1) 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 freatment 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 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 Sodium oxide 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 Environmental precautions: Do not allow material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: Ensure adequate ventilation. Prevention of secondary hazards: No special measures required. 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 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: Refrigerate 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. Refrigerate 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: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. 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. Avoid contact with the eyes and skin. 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. Penetration time of glove material (in minutes) Not determined Eye protection: Safety glasses Body protection: Protective work clothing. 9 Physical and chemical properties Information on basic physical and chemical properties General Information Appearance: Form: Solid Color: White to cream Odor: Odor threshold: Not determined Not determined. pH-value: Not applicable. Change in condition Melting point/Melting range: Boiling point/Boiling range: Not determined Not determined Sublimation temperature / start: Not determined

Product name: Carbenoxolone disodium salt

Page 3/4 Printing date 11/23/2015 Reviewed on 09/25/2012

Carbonavalana di		lewed on 09/25/2012
Product name: Carbenoxolone dis	sodium salt	(Control of page 2)
Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not determined. Not determined Not determined Not determined.	(Contd. of page 2)
Danger of explosion: Explosion limits:	Not determined.	
Lower: Upper:	Not determined Not determined	
Vapor pressure: Density:	Not applicable. Not determined	
Relative density Vapor density	Not determined. Not applicable.	
Evaporation rate Solubility in / Miscibility with	Not applicable. Not applicable.	
Water:	Not determined	
Partition coefficient (n-octanol/wate Viscosity:		
dynamic: kinematic: Other information	Not applicable. Not applicable.	
Other information	No further relevant information available.	
10 Stability and reactivity Reactivity No information known. Chemical stability Stable under reco Thermal decomposition / condition Possibility of hazardous reactions in Conditions to avoid No further releva Incompatible materials: Oxidizing agents Heat Hazardous decomposition products Carbon monoxide and carbon dioxide Sodium oxide	ns to be avoided: Decomposition will not occur if used and stored according to specifications. Reacts with strong oxidizing agents vant information available. ts:	
	c Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.	
LD/LC50 values that are relevant fo Oral LD50 2450 mg/kg (rat)		
Skin irritation or corrosion: Causes Eye irritation or corrosion: Causes Sensitization: No sensitizing effects Germ cell mutagenicity: No effects Carcinogenicity: No classification da Reproductive toxicity: The Registry Specific target organ system toxici Specific target organ system toxici Aspiration hazard: No effects known Subacute to chronic toxicity: No eff Additional toxicological information	s serious eye irritation. known. known. ata on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. γ of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance. ity - repeated exposure: No effects known. ity - single exposure: May cause respiratory irritation. n.	
12 Ecological information Toxicity Aquatic toxicity: No further relevant Persistence and degradability No fu	t information available.	
Bioaccumulative potential No furthe Mobility in soil No further relevant in Additional ecological information: General notes:	er relevant information available. nformation available.	
Uncleaned packagings	cal or national regulations to ensure proper disposal. e made according to official regulations.	
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	Not applicable	
		(Contd. on page 4) USA

Product name: Carbenoxolone disodium salt	
	(Contd. of page 3)
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/	3/78 and the IBC Code Not applicable.
Transport/Additional information:	
DOT Marine Bellutent (DOT):	
Marine Pollutant (DOT):	No
UN "Model Regulation":	
15 Regulatory information	
Safety, health and environmental regulations/legislatio GHS label elements The product is classified and labeled Hazard pictograms	
GHS07	
 P405 Store locked up. P501 Dispose of contents/container in accord National regulations This product is not listed in the U.S. Environmental Protect to research and development only. This product must be uproduct must not be used for commercial purposes or in for This product is not listed on the Canadian Domestic Subst. SARA Section 313 (specific toxic chemical listings) Succalifornia Proposition 65 Prop 65 - Chemicals known to cause cancer Substance Prop 65 - Developmental toxicity, Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not Information about limitations and prohibitive regulation Substance of Very High Concern (SVHC) according to The conditions of restrictions according to Article 67 a market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Autho Chemical Safety Assession) 	hing/eye protection/face protection. ter for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. air and keep comfortable for breathing. rdance with local/regional/national/international regulations. ction Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted used by or directly under the supervision of a technically qualified individual as defined by TSCA. This formulations for commercial purposes. stances List (DSL) or the Canadian Non-Domestic Substances List (NDSL). ubstance is not listed. d. not listed. ot listed. chnically qualified individuals. on a REACH Regulations (EC) No. 1907/2006. Substance is not listed. and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the porisation for use) Substance is not listed.
information to ensure proper use and protect the health an conformance with this Material Safety Data Sheet, or in co	nent to other information gathered by them, and should make independent judgement of suitability of this nd safety of employees. This information is furnished without warranty, and any use of the product not 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 / - Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par R DOT: US Department of Transportation EINECS: Europeen 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 dose, 50 percent UD50: Lethal dose, 50 percent vPvB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA	t Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) ; ;y)

ACGIH: American Conterence of Governmental Industrial Hyg OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

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