

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier Product name: Zinc acetate, anhydrous Stock number: H33734 **CAS Number:** 557-34-6 EC number: 209-170-2 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 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 H319 Causes serious eye irritation. Precautionary statements Precautionary statements P280 Wear protective gloves/protective clothing/eye protection/face protection. P264 Wash thoroughly after handling. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. WHMIS classification D2B - Toxic material causing other toxic effects T Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)

 Image: Constraint of the sector of the se Other hazards Results of PBT and vPvB assessment **PBT:** Not applicable. **vPvB:** Not applicable. 3 Composition/information on ingredients Chemical characterization: Substances CAS# Description: 557-34-6 Zinc acetate Identification number(s): EC number: 209-170-2 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 immediately wash with water and soap and thise 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. (Contd. on page 2)

Product name: Zinc acetate, anhydrous (Contd. of page 1) 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 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 dióxide Metal oxide fume 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: Pick up mechanically. 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 Handle under dry protective gas. 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. Store away from water/moisture. Store away from water/moisture. Further information about storage conditions: Store under dry inert gas. This product is hygroscopic. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Protect from humidity and water. 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. Additional information: No data Exposure controls 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 solled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the aves Avoid contact with the eyes. 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: Powder or granules Color: White Not determined Odor: Odor threshold: Not determined pH-value: Not applicable

Change in condition Melting point/Melting range: 200 °C (392 °F) (dec) Boiling point/Boiling range: Not determined Sublimation temperature / start: Not determined (Contd. on page 3) USA

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roduct name: Zinc acotate anhy		a on 02/28/2012
roduct name: Zinc acetate, anhyo		(Contd. of page 2
Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not determined. Not determined Not determined Not determined.	<u> </u>
Danger of explosion: Explosion limits:	Product does not present an explosion hazard.	
Lower: Upper: Vapor pressure: Density:	Not determined Not determined Not applicable. Not determined	
Density: Relative density Vapor density Evaporation rate	Not determined Not determined. Not applicable. Not applicable.	
Solubility in / Miscibility with Water: Partition coefficient (n-octanol/wate	Not determined	
Viscosity: dynamic: kinematic:	Not applicable. Not applicable.	
Other information	No further relevant information available.	
0 Stability and reactivity Reactivity No information known. Chemical stability Stable under reco Thermal decomposition / condition Possibility of hazardous reactions Conditions to avoid No further releve Incompatible materials: Oxidizing agents Water/moisture	ns to be avoided : Decomposition will not occur if used and stored according to specifications. No dangerous reactions known	
Water/mosture Hazardous decomposition product Carbon monoxide and carbon dioxide Metal oxide fume	ts: 9	
1 Toxicological information Information on toxicological effects Acute toxicity: The Registry of Toxic LD/LC50 values that are relevant fo Oral LD50 2510 mg/kg (rat) Skin irritation or corrosion: May cal	c Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product. or classification:	
Eye irritation or corrosion: Causes Sensitization: No sensitizing effects I Germ cell mutagenicity: The Registi 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	serious eye irritation. known. try of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance. ata on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance. of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance. of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance. ity - repeated exposure: No effects known. ity - single exposure: No effects known. n. n.	
2 Ecological information Toxicity Aquatic toxicity: No further relevant Persistence and degradability No further Discourted No for the	further relevant information available.	
Bioaccumulative potential No furthe Mobility in soil No further relevant in Ecotoxical effects: Remark: Very toxic for aquatic organ	nformation available.	
Additional ecological information: General notes:	l water, water course or sewage system. to the environment without proper governmental permits. Il quantities leak into the ground. in water bodies.	
Very toxic for aquatic organisms Results of PBT and vPvB assessme PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further rele	nent	
Uncleaned packagings:	al or national regulations to ensure proper disposal. e made according to official regulations.	
4 Transport information		
UN-Number DOT, IMDG, IATA	UN3077	
UN proper shipping name DOT	Environmentally hazardous substances, solid, n.o.s. (Zinc acetate, a	
	(Contd. on page

Product name: Zinc acetate, anhydrous (Contd. of page 3) IMDG, IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc acetate, anhvdrous Transport hazard class(es) DOT, IMDG мŀ Class 9 Miscellaneous dangerous substances and articles. Label Class 9 (M7) Miscellaneous dangerous substances and articles Label IATA ЛЬ Class 9 Miscellaneous dangerous substances and articles. Label Packing group DOT, IMDG, IATA IIIEnvironmental hazards: Special marking (ADR): Special marking (IATA): Symbol (fish and tree, Symbol (fish and tree, Special precautions for user Warning: Miscellaneous dangerous substances and articles 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": UN3077, Environmentally hazardous substances, solid, n.o.s. (Zinc acetate, anhydrous), 9, 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 GHS07 Signal word Warning Hazard statements H319 Causes serious eye irritation. Precautionary statements Precaduonary statements P280 Wear protective gloves/protective clothing/eye protection/face protection. P264 Wash thoroughly after handling. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. National regulations All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. All components of this product are listed on the Canadian Domestic Substances List (DSL). SARA Section 313 (specific toxic chemical listings) 557-34-6 Zinc acetate 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. Information about limitation of use: Information about imitation or use: For use only by technically qualified individuals. This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372. 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. 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 Sneet, or in combination with any other product or process, is the responsibility of the discr. Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / Abbreviations and acconyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Curingen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IDGC: International Curingen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IDG: International Amitime Code for Dangerous Goods DOT: US Department of Transportation EINECS: European Inventory of Existing Commercial Chemical Substances EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (livison of the American Chemical Society) HMIS: Hazardous Materials Information System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LCSD: Lethal concentration, 50 percent LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent (Contd. on page 5)

Product name: Zinc acetate, anhydrous

vPvB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA) Page 5/5 Printing date 11/23/2015 Reviewed on 02/28/2012

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