

Safety Data Sheet per OSHA HazCom 2012

1 Identification	
Product identifier	
Product name: 5-(Dimethylaminomethyl)furfuryl alcoholhydrochloride	
Stock number: L10934 CAS Number: 81074-81-9 EC number: 279-686-0	
<i>Relevant identified uses of the substance or mixture and uses advised against.</i> <i>Identified use:</i> SU24 Scientific research and development	
Details of the supplier of the safety data sheet Manufacturer/Supplier: Alfa Aesar	
Thermo Fisher Scientific Chemicals, Inc. 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) 9.	28-0789.
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. 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 rin P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification D2B - Toxic material causing other toxic effects	ising.
$(\mathbf{\bar{T}})$	
Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)	
HEALTH I Health (acute effects) = 1 REE I Flammability = 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: 81074-81-9 5-(Dimethylaminomethyl)furfuryl alcoholhydrochloride Identification number(s): EC number: 279-686-0	
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.	(Contri on serve C)
	(Contd. on page 2) USA –

Product name: 5-(Dimethylaminomethyl)furfuryl alcoholhydrochloride (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 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 Nitrogen oxides (NOx) Hydrogen chloride (HCI) Hydrogen cyanide (HCN) Advice for firefighters Protective equipment: 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. 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. 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. 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 Odor: Odor threshold: Not determined Not determined. pH-value: Not applicable.

Change in condition Melting point/Melting range: Boiling point/Boiling range:

122-124 °C (252-255 °F) Not determined Sublimation temperature / start: Not determined

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	Nat data wasin a d	(Contd. of page 2)
Flammability (solid, gaseous) Ignition temperature:	Not determined. Not determined	
Decomposition temperature: Auto igniting:	Not determined Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits: Lower:	Not determined	
Upper:	Not determined	
Vapor pressure: Density:	Not applicable. Not determined	
Relative density	Not determined.	
Vapor density Evaporation rate	Not applicable. Not applicable.	
Solubility in / Miscibility with		
Water: Partition coefficient (n-octanol/water)	Soluble : Not determined.	
Viscosity: dynamic:	Not applicable.	
kinematic:	Not applicable.	
Other information	No further relevant information available.	
10 Stability and reactivity		
Reactivity No information known.		
Chemical stability Stable under recom	mended storage conditions. to be avoided: Decomposition will not occur if used and stored according to specifications.	
Possibility of hazardous reactions No	o dangerous reactions known	
Conditions to avoid No further relevan Incompatible materials: Oxidizing age	t information available.	
Hazardous decomposition products:		
Carbon monoxide and carbon dioxide Nitrogen oxides		
Hydrogen chloride (HCl) Hydrogen cyanide		
11 Toxicological information		
Information on toxicological effects Acute toxicity: No effects known.		
LD/LC50 values that are relevant for c		
Skin irritation or corrosion: Causes skin Eye irritation or corrosion: Causes se	(in irritation. rious eve irritation	
Sensitization: No sensitizing effects kn	own.	
Germ cell mutagenicity: No effects kno	own. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.	
Reproductive toxicity: No effects know	vn.	
Specific target organ system toxicity Specific target organ system toxicity	 repeated exposure: No effects known. single exposure: May cause respiratory irritation. 	
Aspiration hazard: No effects known. Subacute to chronic toxicity: No effect		
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 inf	ormation available.	
Persistence and degradability No furth Bioaccumulative potential No further r	ter relevant information available. relevant information available	
Mobility in soil No further relevant infor	mation available.	
Additional ecological information: General notes:		
Do not allow material to be released to t	he environment without proper governmental permits. quantities to reach ground water, water course or sewage system.	
Avoid transfer into the environment.		
Results of PBT and vPvB assessmen PBT: Not applicable.	t	
vPvB: Not applicable. Other adverse effects No further releva	ant information quallable	
13 Disposal considerations		
Waste treatment methods	or national regulations to ensure proper disposal.	
Uncleaned packagings:		
Recommendation: Disposal must be m Recommended cleansing agent: Wate	ade according to official regulations. er, if necessary with cleansing agents	
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14 Transport information Not a hazardous material for transportat	ion.	
UN-Number	None	
DOT, IMDG, IATA UN proper shipping name	None	
UN proper shipping name DOT, IMDG, IATA	None	
Transport hazard class(es)		
DOT, ADR, IMDG, IATA Class	None	
Packing group DOT, IMDG, IATA	None	
DOT, IMDG, IATA	None	(Contd. on page 4)
		(on pago /)

Product name: 5-(Dimethylaminomethyl)furfuryl alcoholhydrochloride (Contd. of page 3) Environmental hazards: Not applicable. Special precautions for user Not applicable. Transport in bulk according to Annex II of MARPOL73/78 and 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. H335 May cause respiratory irritation. Precautionary statements Precationary 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. P405 Store locked up. P504 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. 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, female 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: 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. National regulations market and use must be observed. 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 or use user. Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / Abbreviations and acronyms: RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) IMDG: International Civil Aviation Organization ICAO-TI: Technical Instructions by the "International Substances DOT: US Department of Transport alsociation EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Information System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal dose, 50 percent UD50: Lethal dose, 50 percent VPWB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) ITP: National Travicology Program (USA) USA