

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier Product name: 2-Chloro-6-fluorophenylacetic acid Stock number: L02946 CAS Number: 37777-76-7 EC number: 253-661-4 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 skill initiation. H319 Causes serious eye irritation. H325 May cause respiratory irritation. **Precautionary statements** P280 Wear protective gloves. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. WHMIS classification D2B - Toxic material causing other toxic effects Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) 1 Health (acute effects) = 1Flammability = 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: 37777-76-7 2-Chloro-6-fluorophenylacetic acid Identification number(s): EC number: 253-661-4 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.

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(Contd. of page 1) 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 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 Hydrogen chloride (HCI) Hydrogen fluoride (HF) 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. 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. Eye protection: Safety glasses Body protection: Protective work clothing. 9 Physical and chemical properties Information on basic physical and chemical properties General Information Appearance: Crystalline powder White . Form. Color: Odor: Odorless Odor threshold: Not determined Not applicable pH-value: Change in condition 121-124 °C (250-255 °F) Not determined Not determined Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Not applicable Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Not determined. Not determined Not determined (Contd. on page 3)

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Product name: 2-Chloro-6-fluoroph	enylacetic acid	
		(Contd. of page 2)
Auto igniting:	Not determined.	
Danger of explosion: Explosion limits: Lower: Upper: Vapor pressure: Density: Relative density Vapor density Evaporation rate Solubility in / Miscibility with	Product does not present an explosion hazard. Not determined Not applicable. Not determined Not determined. Not applicable. Not applicable. Not applicable.	
Water: Partition coefficient (n-octanol/water, Viscosity:		
dynamic: kinematic: Other information	Not applicable. Not applicable. No further relevant information available.	
10 Stability and reactivity		i
Reactivity No information known	nt information available. Ints	
Reproductive toxicity: No effects know Specific target organ system toxicity Specific target organ system toxicity Aspiration hazard: No effects known. Subacute to chronic toxicity: No effe	kin irritation. prous eye irritation. hown. own. a on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. wn. - repeated exposure: No effects known. - single exposure: May cause respiratory irritation.	
12 Ecological information Toxicity Aquatic toxicity: No further relevant in Persistence and degradability No further Bioaccumulative potential No further Mobility in soil No further relevant info Additional ecological information: General notes: Do not allow material to be released to Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevironment.	relevant information available. rmation available. the environment without proper governmental permits. nt	
13 Disposal considerations Waste treatment methods Recommendation Consult state, local Uncleaned packagings: Recommendation: Disposal must be n	or national regulations to ensure proper disposal. nade according to official regulations.	
14 Transport information Not a hazardous material for transporta	tion.	
UN-Number DOT, IMDG, IATA	None	
UN proper shipping name DOT, IMDG, IATA	None	
Transport hazard class(es)		
DOT, ADR, IMDG, IATA Class Packing group	None	
Packing group DOT, IMDG, IATA	None	
Environmental hazards: Special precautions for user	Not applicable. Not applicable.	
	x II of MARPOL73/78 and the IBC Code Not applicable.	
Transport/Additional information:	Not dangerous according to the above specifications.	
		(Contd. on page 4)

Product name: 2-Chloro-6-fluorophenylacetic acid		
~	(Contd. of page 3	
DOT Marine Pollutant (DOT):	No	
15 Regulatory information Safety, health and environmental regulations, GHS label elements The product is classified ar Hazard pictograms	s/legislation specific for the substance or mixture and labeled in accordance with 29 CFR 1910 (OSHA HCS)	
GHS07		
National regulations This product is not listed in the U.S. Environmeni to research and development only. This product is product must not be used for commercial purpos SARA Section 313 (specific toxic chemical lis California Proposition 65 Prop 65 - Chemicals known to cause cancer S Prop 65 - Developmental toxicity, female Substance is Prop 65 - Developmental toxicity, male Substa Information about limitation of use: For use or Other regulations, limitations and prohibitive Substance of Very High Concern (SVHC) accc The conditions of restrictions according to Au market and use must be observed. Substance is not listed.	Substance is not listed. is not listed. bstance is not listed. tance is not listed. only by technically qualified individuals.	
information to ensure proper use and protect the conformance with this Material Safety Data Shee	a supplement to other information gathered by them, and should make independent judgement of suitability of this e health and safety of employees. This information is furnished without warranty, and any use of the product not in set, or in combination with any other product or process, is the responsibility of the user.	
Department issuing SDS: Global Marketing Dep Date of preparation / last revision 11/24/2015 / Abbreviations and acronyms: RiD: Reglement international concernant le transport des marche la TA-DGR: Dangerous Goods Regulations by the "International ICAO: International Civil Aviatio Organization ICAO-TI: Technical Instructions by the "International Civil Aviatio IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association EINECS: European Inventory of Existing Commercial Chemical S CAS: Chemical Abitracts Service (division of the American Chem HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Ca LC50: Lethal concentration, 50 percent VPWE: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygier OSHA: Occupational Safety and Health Administration (USA) NTP: National Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	5 / - thandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) al Air Transport Association" (IATA) tion Organization" (ICAO) I Substances emical Society) Canada)	