



Reviewed on 11	1/11/2011
1 Identification	
Product identifier Product name: <b>5-Carboxy-2-methoxybenzeneboronic acid</b>	
Stock number: H52929	
CAS Number: 730971-32-1 Polovant 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 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) 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 eve 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.	
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	
$(\mathbf{T})$	
Classification system	
HMIS ratings (scale 0-4) (Hazardous Materials Identification System)	
HEALTH I Health (acute effects) = 1	
REACTIVITY Physical Házard = 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: 730971-32-1 5-Carboxy-2-methoxybenzeneboronic acid	
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 sucleaving Soak medical treatment	
After swallowing Seek medical tréatment. (Contd. c	on page 2) USA

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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 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 Boron 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. 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 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: 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 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 The selection of suitable 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: Not determined Odor threshold: Not determined pH-value: Not applicable. Change in condition 207-210 °C (405-410 °F) Not determined Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Not determined Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Not determined

Not determined Not determined

Not determined

Auto igniting:

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Product name: 5-Carboxy-2-methox	ybenzeneboronic acid	
		(Contd. of page 2)
Danger of explosion: Explosion limits:	Not determined.	
Lower:	Not determined	
Upper: Vapor pressure:	Not determined Not applicable.	
Density:	Not determined	
Relative density Vapor density	Not determined. Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with Water:	Not determined	
Partition coefficient (n-octanol/water)		
Viscosity: dynamic:	Not applicable.	
kinematic: Other information	Not applicable. No further relevant information available.	
10 Stability and reactivity		
Reactivity No information known. Chemical stability Stable under recomi	mended storage conditions.	
Thermal decomposition / conditions to Possibility of bazardous reactions No	to be avoided: Decomposition will not occur if used and stored according to specifications.	
Conditions to avoid No further relevan	t information available.	
Incompatible materials: Oxidizing ager Hazardous decomposition products:	nts	
Carbon monoxide and carbon dioxide		
Boron oxide		
11 Toxicological information		
Information on toxicological effects Acute toxicity: No effects known.		
LD/LC50 values that are relevant for of Skin irritation or corrosion: Causes skin irritation or corrosion (Causes skin irritation)	slassification: No data	
Eye irritation or corrosion: Causes se	rious eve irritation.	
Sensitization: No sensitizing effects kno Germ cell mutagenicity: No effects kno	own.	
Carcinogenicity: EPA-I: Data are inade	equate for an assessment of human carcinogenic potential.	
Reproductive toxicity: No effects know	vh.	
Specific target organ system toxicity Specific target organ system toxicity	<ul> <li>repeated exposure: No effects known.</li> <li>single exposure: May cause respiratory irritation.</li> </ul>	
Aspiration hazard: No effects known.	- single exposure: May cause respiratory irritation.	
Additional toxicological information:	ts known. 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	her relevant information available.	
Bioaccumulative potential No further r 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.	
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	t	
PBT: Not applicable. vPvB: Not applicable.	L Contraction of the second	
vPvB: Not applicable. Other adverse effects No further relevant	ant information available.	
13 Disposal considerations		
Waste treatment methods		
Recommendation Consult state, local o Uncleaned packagings:	or national regulations to ensure proper disposal.	
Recommendation: Disposal must be m	ade 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	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
	I of MARPOL73/78 and the IBC Code Not applicable.	
Transport/Additional information:		
DOT		
Marine Pollutant (DOT):	No	(Contd. on page 4
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UN "Model Regulation": -
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.         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.
P405 Store locked up. 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. 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, 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.
Information about limitation 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. 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.
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) ICAO: International Civil Aviation Organization ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Aritime Code for Dangerous Goods DOT: US Department of Transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Arit Transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Arit Transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Arit Transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Air Transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMTA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Workplace Hazardous Materials Information System (Canada) LCS0: Lethal dose, 50 percent VPVB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

USA -