



	Reviewed on 04/24/2007
1 Identification	
Product identifier Product name: 5-Amino-2,4-difluorobenzotrifluoride	
Stock number: B22923, L19169	
CAS Number:	
261944-56-3 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 (8	266) 028-0780
	00/ 520 0705.
2 Hazard(s) identification Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)	
GHS06 Skull and crossbones	
Acute Tox. 3 H301 Toxic if swallowed.	
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	
GHS06	
Signal word Danger	
Hăzard statements H301 Toxic if swallowed.	
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.	
P301+P310 IF SWALLOWED Immediately call a POISON CENTER/ doctor/	and the state of
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Contin P405 Store locked up.	ue rinsing.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification	
D1B - Toxic material causing immediate and serious toxic effects D2B - Toxic material causing other toxic effects	
Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)	
HEALTH I Health (acute effects) = 1	
FIRE I REACTIVITY II Physical Hazard = 1	
Other hazards Results of PBT and vPvB assessment	
PBT: Not applicable.	
3 Composition/information on ingredients Chemical characterization: Substances	
CAS# Description: 261944-56-3 5-Amino-2,4-difluorobenzotrifluoride	
4 First-aid measures	
Description of first aid measures	
After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm.	
	(Contd. on page 2)

Safety Data Sheet per OSHA HazCom 2012

Product name: 5-Amino-2,4-difluorobenzotrifluoride

Product name: 5-Amino-2,4-difluorobenzotrifluoride	
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. Information for doctor Most important symptoms and effects, both acute and delayed Methemoglobinemia Indication of any immediate medical attention and special treatment needed No further relevant information available.	(Contd. of page 1)
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 Nitrogen oxides (NOx) 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: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to section 13. 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 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 solied 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: Form: Liquid Odor: Not determined Odor threshold: Not determined.	
pH-value: Not determined.	
Change in condition Melting point/Melting range: Not determined	(Contra on same of
	(Contd. on page 3)

Product name: 5-Amino-2 4-difluorobenzotrifluoride

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Product name: 5-Amino-2,4-difluor	obenzotrifluoride	
	(Contd. of page 2	
Boiling point/Boiling range: Sublimation temperature / start:	Not determined Not determined	
Flash point: Elammability (solid, gaseous)	Not determined Not determined.	
Flammability (solid, gaseous) Ignition temperature:	Not determined	
Decomposition temperature: Auto igniting:	Not determined Not determined.	
Danger of explosion: Explosion limits:	Product does not present an explosion hazard.	
Lower: Upper:	Not determined Not determined	
Vapor pressure:	Not determined	
Density: Relative density	Not determined Not determined	
Vapor density Evaporation rate	Not determined. Not determined.	
Solubility in / Miscibility with Water:	Not determined	
Partition coefficient (n-octanol/water Viscosity:): Not determined.	
dynamic: kinematic:	Not determined. Not determined.	
Other information	No further relevant information available.	
10 Stability and reactivity		
Reactivity No information known.		
Chemical stability Stable under recom Thermal decomposition / conditions	nmended storage conditions. to be avoided: Decomposition will not occur if used and stored according to specifications.	
Possibility of hazardous reactions N Conditions to avoid No further relevan	o dangerous reactions known	
Incompatible materials: Oxidizing age	ents	
Hazardous decomposition products: Carbon monoxide and carbon dioxide		
Nitrogen oxides Hydrogen fluoride		
11 Toxicological information		
Information on toxicological effects		
Acute toxicity: Harmful if swallowed. LD/LC50 values that are relevant for	classification: No data	
Skin irritation or corrosion: Causes s Eye irritation or corrosion: Causes se	skin irritation.	
Sensitization: No sensitizing effects kr	nown.	
Germ cell mutagenicity: No effects kr. Carcinogenicity: No classification data	a on carcinogenic properties of this material is available from the EPA. IARC. NTP. OSHA or ACGIH.	
Reproductive foxicity: No effects kno Specific target organ system toxicity	repeated exposure: No effects known.	
Aspiration hazard: No effects known	v - single exposure: May cause respiratory irritation.	
Subacute to chronic toxicity: Absorption into the body may lead to the formation of methemoglobin, producing cyanosis, and marked fall in blood pressure leading to collapse, coma and possibly		
death. Unset may be delayed 2-4 hour	s or longer. To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.	
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12 Ecological information Toxicity		
Aquatic toxicity: No further relevant in Persistence and degradability No further	iformation available.	
Bioaccumulative potential No further	relevant information available.	
Mobility in soil No further relevant info Additional ecological information:	rmation available.	
General notes: Do not allow material to be released to	the environment without proper governmental permits.	
Do not allow undiluted product or large Avoid transfer into the environment.	quantities to reach ground water, water course or sewage system.	
Results of PBT and vPvB assessmer PBT: Not applicable		
vPvB: Not applicable. Other adverse effects No further relev	rant information available.	
13 Disposal considerations Waste treatment methods		
Recommendation Consult state, local	or national regulations to ensure proper disposal.	
Uncleaned packagings: Recommendation: Disposal must be r	nade according to official regulations.	
14 Transport information		
14 Transport information Not a hazardous material for transporta	tion.	
UN-Number DOT, IMDG, IATA	None	
UN proper shipping name DOT, IMDG, IATA	None	
	(Contd. on page 4	

Product name: 5-Amino-2,4-diffuorobenzotriffuoride (Contri or gen Transport hazard class(es) Control of gen Boy, MADO, NTA (Contri or gen Boy, MADO, NTA Packing group Dory, MBDS, MTA Norme Morme Packing group Dory, MBDS, MTA Norme Morme Environmental hazards: Norme Mora applicable. Transport Maddinonal information. Nor diapplicable. Mora applicable. Transport Maddinonal information. Nor diapplicable. Mora applicable. Transport Maddinonal information. Nor diapplicable. Mora Setexty, health and environmental regulations/Registation specific for the substance or mixture GHS lase demons The product is descelled and labeled in according with 2G CER 1910 (OSHA HCS) High percentagenes. Setexty, health and environmental regulations/Registation specific for the substance or mixture GHS lase development The product is descelled and labeled in according with regulation. Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G) Fig. 1 (2G)		Reviewed on 04/24/200.
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Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA)	Safety, health and environmental regulations/legislation spee GHS label elements The product is classified and labeled in acc Hazard pictograms GHS06 Signal word Danger Hazard statements H301 Toxic if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H319 Causes serious eye irritation. H319 Causes serious eye irritation. Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapours/s P280 Wear protective gloves/protective clothing/eye P301+P310 IF SWALLOWED: Immediately call a POISON P305+P351+P338 IF IN EYES: Rinse cautiously with water for se P405 Store locked up. P501 Dispose of contents/container in accordance v National regulations This product is not listed in the U.S. Environmental Protection Ag to research and development only. This product must be used by product must not be used for commercial purposes or in formulati SARA Section 313 (specific toxic chemical listings) Substance California Proposition 65 Prop 65 - Developmental toxicity, 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. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, angle Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the RE The conditions of restrictions according to Article 67 and An market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisatio Chemical safety assessment: A Chemical Safety Assessment h	spray. e protection/face protection. V CENTER/ doctor/ everal minutes. Remove contact lenses, if present and easy to do. Continue rinsing. with local/regional/national/international regulations. gency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted / or directly under the supervision of a technically qualified individual as defined by TSCA. This tions for commercial purposes. re is not listed.
Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA)	information to ensure proper use and protect the health and safet conformance with this Material Safety Data Sheet, or in combinat Department issuing SDS: Global Marketing Department Pate of proparties (last rovision 11/24/2015)	ty of employees. This information is furnished without warranty, and any use of the product not in tion with any other product or process, is the responsibility of the user.
minis. relzaruous indentiais luentification system (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent VPUB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA)	Abbreviational Martime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society)	
ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA)	niviis, razaroous materiais identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent VPVB; very Persistent and very Bioaccumulative	
NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	ACGIH: American Conterence 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)	USA