SAFETY DATA SHEET

Creation Date 05-November-2009 **Revision Date** 28-March-2019 **Revision Number** 2

1. Identification

Product Name **2,5-Bis(trifluoromethyl)benzenesulfonyl chloride**

Cat No. : **MAY00129EB; MAY00129ZZ**

Synonyms No information available

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company
Importer/Distributor
Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Maybridge
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number
For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
CHEMTREC Tel. No.**US:**001-800-424-9300 / **Europe:**001-703-527-3887

2. Hazard(s) identification

Classification

WHMIS 2015 Classification Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

Acute oral toxicity	Category 4	
Acute Inhalation Toxicity	Category 3	(based on evolved HCl gas)
Skin Corrosion/irritation	Category 1 B	
Serious Eye Damage/Eye Irritation	Category 1	
Specific target organ toxicity (single exposure)	Category 3	
Target Organs - Respiratory system.		
Health Hazards Not Otherwise Classified	Category 1	
In contact with water, releases gases which are toxic if inhaled		

Label Elements

Signal Word
Danger

Hazard Statements
Harmful if swallowed

Toxic if inhaled
Causes severe skin burns and eye damage
May cause respiratory irritation
In contact with water, releases gases which are toxic if inhaled

Precautionary Statements
Prevention
Do not allow contact with water
Do not breathe dust/fumes/gas/mist/vapours/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Response
IF INHALED: Remove person to fresh air and keep comfortable for breathing
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER/doctor
Rinse mouth
Do NOT induce vomiting
Wash contaminated clothing before reuse
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in a dry place
Disposal
Dispose of contents/container to an approved waste disposal plant

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
2,5-Bis(trifluoromethyl)benzenesulfonyl chloride	351003-22-0	97

4. First-aid measures

General Advice
Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

Skin Contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.

Inhalation
Move to fresh air. If not breathing, give artificial respiration. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Ingestion Immediate medical attention is required. Do not induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.

Most important symptoms/effects Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media CO_2, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media DO NOT USE WATER

Flash Point No information available
Method - No information available

Autoignition Temperature No information available

Explosion Limits
Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical
The product causes burns of eyes, skin and mucous membranes. Contact with water liberates toxic gas.

Hazardous Combustion Products
Thermal decomposition can lead to release of irritating gases and vapors Hydrogen chloride gas
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
3	1	2	W

6. Accidental release measures

Personal Precautions Use personal protective equipment. Evacuate personnel to safe areas. Avoid contact with skin, eyes and clothing.

Environmental Precautions Should not be released into the environment. Do not allow material to contaminate ground water system. See Section 12 for additional ecological information.

Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Do not expose spill to water.

7. Handling and storage

Handling Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe dust. Do not ingest. Do not allow contact with water.

Storage Keep away from water. Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.

Engineering Measures
Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Goggles
Hand Protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Glove material	Breakthrough time	Glove thickness	Glove comments
Natural rubber Butyl rubber Nitrile rubber Neoprene PVC	See manufacturers recommendations	-	Splash protection only

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Recommended Filter type: Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls
No information available.

Hygiene Measures
When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use.

9. Physical and chemical properties

Physical State	Solid
Appearance	Yellow
Odor	No information available
Odor Threshold	No information available
pH	No information available
Melting Point/Range	63 - 66 °C / 145.4 - 150.8 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available

Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	C8 H3 Cl F6 O2 S
Molecular Weight	312.62

10. Stability and reactivity

Reactive Hazard Yes

Stability Water reactive.

Conditions to Avoid Incompatible products. Excess heat. Exposure to moist air or water. Exposure to moisture. Avoid dust formation.

Incompatible Materials Strong oxidizing agents, Water, Strong acids, Strong bases, Alcohols, Amines

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors, Hydrogen chloride gas

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Causes burns by all exposure routes

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
2,5-Bis(trifluoromethyl) benzenesulfonyl chloride	351003-22-0	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Respiratory system

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Harmful to aquatic organisms. Reacts with water so no ecotoxicity data for the substance is available.

Persistence and Degradability Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No	UN3131
Proper Shipping Name	WATER-REACTIVE SOLID, CORROSIVE, N.O.S.
Proper technical name	2,5-Bis(trifluoromethyl)benzenesulfonyl chloride
Hazard Class	4.3
Subsidiary Hazard Class	8
Packing Group	III

TDG

UN-No	UN3131
Proper Shipping Name	WATER-REACTIVE SOLID, CORROSIVE, N.O.S.
Hazard Class	4.3
Subsidiary Hazard Class	8
Packing Group	III

IATA

UN-No	UN3261
Proper Shipping Name	Corrosive solid, acidic, organic, n.o.s
Hazard Class	8
Packing Group	III

IMDG/IMO

UN-No	UN3261
Proper Shipping Name	Corrosive solid, acidic, organic, n.o.s
Hazard Class	8
Packing Group	III

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

16. Other information

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Creation Date	05-November-2009
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Revision Summary	This document has been updated to comply with the requirements of WHMIS 2015 to align with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS