SISCO RESEARCH LABORATORIES PVT. LTD.

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Safety Data Sheet

Review Date : 4-Oct-2023

Section 1 - Chemical Product and Company Identification

Product Name	tert-Butyl Methyl Ether pure, 98%
Product Code	79927
CAS No	1634-04-4
Use for	Laboratory Chemicals.
Company Name	Sisco Research Laboratories Pvt. Ltd.
Address	608, B Wing, Satellite Gazebo, Andheri Ghatkopar Link Road, Andheri (E), Mumbai - 400 099, India

Section 2 - Composition/Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
1634-04-4	tert-Butyl methyl ether	<=100	216-653-1

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Highly flammable. Irritating to skin.

Potential Health Effects

Eye: May cause eye irritation. Causes redness and pain.

Skin: Causes skin irritation. May be absorbed through the skin. Causes symptoms similar to those of inhalation.

Ingestion: Aspiration hazard. May cause unconsciousness. May cause central nervous system effects. May cause headache, nausea, fatigue, and dizziness.

Inhalation: May cause respiratory tract irritation. Exposure produces central nervous system depression. May cause headache. Inhalation of vapors may cause nausea, vomiting, dizziness, and loss of consciousness.

Chronic: Repeated inhalation may cause nasal and tracheal inflammation. Chronic exposure may cause liver damage.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Possible aspiration hazard. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

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General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Containers may explode in the heat of a fire. Flammable liquid and vapor.

Extinguishing Media: Use water spray to cool fire-exposed containers. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area where the water cannot be contained. Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Remove all sources of ignition. Use a spark-proof tool.

Section 7 - Handling and Storage

Handling: Use spark-proof tools and explosion proof equipment. Avoid contact with skin and eyes. Do not breathe dust, vapor, mist, or gas. Take precautionary measures against static discharges.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

Section 8 - Exposure Control / Personal Protection

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Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits CAS# 1634-04-4:

United Kingdom, WEL - TWA: 25 ppm TWA; 92 mg/m3 TWA
United Kingdom, WEL - STEL: 75 ppm STEL; 275 mg/m3 STEL
Belgium - TWA: 40 ppm VLE; 146 mg/m3 VLE
Germany: 50 ppm TWA; 180 mg/m3 TWA
Malaysia: 40 ppm TWA; 144 mg/m3 TWA
Netherlands: 100 ppm STEL; 360 mg/m3 STEL
Netherlands: 50 ppm MAC; 180 mg/m3 MAC
Russia: 100 mg/m3 TWA (vapour)
Spain: 40 ppm VLA-ED; 147 mg/m3 VLA-ED

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

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.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Solubility in water: 51 g/l (20°C)
Specific Gravity/Density: 0.740
Molecular Formula: C5H12O
Molecular Weight: 88.15

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, light, ignition sources, excess heat.

Incompatibilities with Other Materials Excess heat, strong acids, amines, ammonia, chlorinated solvents, plastics, aldehydes (e.g. acetaldehyde, acrolein, chloral, formaldehyde), caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide).

Hazardous Decomposition Products Carbon monoxide, carbon dioxide, peroxides, formic acid, butyl formate, methyl radicals, acetone.

Hazardous Polymerization Will not occur.

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Section 11 - Toxicological Information

RTECS#: CAS# 1634-04-4: KN5250000

LD50/LC50: RTECS:

CAS# 1634-04-4: Inhalation, mouse: LC50 = 141 gm/m3/15M;
Inhalation, mouse: LC50 = 28000 mg/m3/2H;
Inhalation, rat: LC50 = 23576 ppm/4H;
Inhalation, rat: LC50 = 41000 mg/m3/4H;
Oral, mouse: LD50 = 5960 uL/kg;
Oral, rat: LD50 = 4 gm/kg;

Carcinogenicity: tert-Butyl methyl ether - ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans IARC: Group 3 (not classifiable)

Other: See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Ecotoxicity: Bacteria: Pseudomonas putida: EC10 : ca. 700 mg/l; 18H; Bringmann-Kühn test
Fish: Leuciscus idus: LC50 : > 100 mg/l; 48H; .
Fish: Fathead Minnow: LC50 : 110 mg/L; 96h; .
Daphnia: Daphnia: EC50 : 651 mg/l; 48H; .

Other: Avoid entering into waters or underground water. Do not empty into drains. Non-biodegradable.
log POW = 1,06

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR	
Shipping Name:	Tert-Butyl Methyl Ether	Tert-Butyl Methyl Ether	Tert-Butyl Methyl Ether
Hazard Class:	3	3	3
UN Number:	2398	2398	2398
Packing Group:	II	II	II

Section 15 - Regulatory Information

Product Code 79927

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI F

Risk Phrases: R 11 Highly flammable.R 38 Irritating to skin.

Safety Phrases: S 9 Keep container in a well-ventilated place.S 16 Keep away from sources of ignition - No smoking.S 24 Avoid contact with skin.

WGK (Water Danger/Protection)CAS# 1634-04-4: 1

Canada CAS# 1634-04-4 is listed on Canada's DSL List

US Federal

TSCA CAS# 1634-04-4 is listed on the TSCA Inventory.

Section 16 - Other Information

Sisco Research Laboratories Pvt. Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.