

Water reactive liquid, n.o.s.
(borane-tetrahydrofuran complex, tetrahydrofuran)
UN3148

Transportation Emergency: 1-800-424-9300 in USA
1-703-527-3887 outside USA
Callery Chemical Co. 24-Hour Telephone: 1-412-967-4100

Flashpoint: -21.7°C

Borane-tetrahydrofuran complex, 1M solution in tetrahydrofuran (BTHF1M)

DANGER! REACTS VIOLENTLY WITH WATER, MOIST AIR, ALCOHOLS, ACIDS, AND OTHER INCOMPATIBLE MATERIALS RELEASING FLAMMABLE HYDROGEN GAS WHICH CAN IGNITE EXPLOSIVELY
EXTREMELY FLAMMABLE LIQUID AND VAPOR
VAPOR MAY CAUSE FLASH FIRE
CAUSES SKIN IRRITATION
MAY CAUSE EYE AND RESPIRATORY TRACT IRRITATION AND CENTRAL NERVOUS SYSTEM DEPRESSION WITH NAUSEA, DIZZINESS, AND HEADACHE
MAY BE ABSORBED THROUGH THE SKIN
MAY CAUSE LIVER AND KIDNEY EFFECTS
EVOLVES FLAMMABLE AND TOXIC DIBORANE GAS ABOVE 50°C
TETRAHYDROFURAN CAN FORM POTENTIALLY EXPLOSIVE PEROXIDES UPON LONG STANDING IN AIR

Avoid breathing vapor or mist. Use only with adequate ventilation. Keep container tightly closed. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

To protect product purity, refrigerate at 0°C or lower. Handle and store in a DRY closed system under dry nitrogen gas. Do not store residues. Properly dispose of all residues immediately.

Keep away heat, sparks, flame and any possible contact with water, moist air, alcohols, acids, and other incompatible materials. Do not expose to air. Handle and store in a closed system under dry nitrogen gas. Use dry nitrogen gas to inert containers, transfer lines, vessels, tanks, etc., such that the atmosphere stays below 3% oxygen. Use non-sparking tools when opening or closing containers. Bond and ground all systems when handling.

PERSONAL PROTECTIVE EQUIPMENT:

Normal Use & Handling: When exposure to eyes and skin is possible, wear chemical protective goggles with a faceshield and flame-retardant protective clothing. Glove permeation data does not exist for this mixture. Exposure limits have not been established for Borane-tetrahydrofuran complex, 1M solution in tetrahydrofuran. When inhalation of vapor or mist is possible, wear a NIOSH-approved self-contained breathing apparatus with full facepiece operated in a positive-pressure mode. Eye wash and safety showers must be available and in good working order.

Emergency Handling: For firefighting, wear full protective clothing, including protective gloves and boots. For chemical spills, wear special protective clothing (vapor-protective suit with additional chemical flash fire escape protection, as specified in NFPA 1991). For respiratory protection, wear a NIOSH-approved self-contained breathing apparatus with full facepiece operated in a positive-pressure mode.

SPILL ACTION: Wear recommended personal protective equipment. Be prepared to fight fire. Eliminate ignition sources. Do not flush spill to drain. Mix with large amounts of DRY soda ash. Using non-sparking tools, scoop solids into a DRY metal container, properly label, and cover. Take immediately to a waste handling area. If contaminated, flammable hydrogen gas can evolve and cause fire, explosion, or pressure buildup in container. Properly dispose of all residues immediately. Handle in compliance with all local, state, and federal laws and regulations. The reportable quantity for tetrahydrofuran is 1000 pounds.

FIRE ACTION: Use carbon dioxide or dry chemical. DO NOT use water, foam, or halogenated extinguishing agents.

FIRST AID: SEND TO A PHYSICIAN IN ALL CASES.

Note: Immediately flushing with plenty of water is the appropriate eye and skin emergency first aid treatment for this water-reactive chemical. For the eye, it is extremely important that flushing with water (with the eyelids held open) begins within the first minute after Borane-tetrahydrofuran complex has entered the eye and continues for the full 20 minutes. If large amounts of Borane-tetrahydrofuran complex are involved, flammable fumes and solutions may be produced during the emergency first aid treatment procedure; therefore, emergency showers should be adequately ventilated and equipped to handle flammable fumes and solutions that emergency first aid treatment may generate.

Eyes: Immediately flush eyes with plenty of water for at least 20 minutes while holding eyelids open.

Skin: Immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Dispose of contaminated clothing and shoes in compliance with all local, state, and federal laws and regulations.

Ingestion: For any accidental contamination of the mouth, gargle with water and rinse mouth thoroughly for at least 20 minutes. If swallowed, do not induce vomiting. Give demulcent such as milk, olive oil, or margarine in small amounts up to 2 or 3 ounces. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

DISPOSAL: Do not flush to sewer. Dispose in compliance with all local, state, and federal laws and regulations.

DO NOT TAKE INTERNALLY.

KEEP OUT OF REACH OF CHILDREN.

CASRN: 14044-65-6, 109-99-9

FILE: BTHF1M-label

2001

FORMULA: (CH₂)₄O·BH₃ in (CH₂)₄O

DATE: October 15,