

# **Material Safety Data Sheet**

Transportation Emergency: 1-800-451-8346

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# SECTION 1. ----- CHEMICAL IDENTIFICATION-----

CATALOG #: 1300-1-21

NAME: 2-METHYL-1-BUTENE

# SECTION 2. ---- COMPOSITION/INFORMATION ON INGREDIENTS -----

CAS NUMBER: 563-46-2

MOLECULAR FORMULA: C<sub>5</sub>H<sub>10</sub> MOLECULAR WEIGHT: 70.13

#### SECTION 3, ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

EXTREMELY FLAMMABLE LOW BOILING LIQUID.

ASPIARTION HAZARD.

HARMFUL.

HARMFUL BY INGESTION. HARMFUL IF INHALED.

TARGET ORGANS

LUNGS.

# SECTION 4. ----- FIRST-AID MEASURES-----

#### ORAL EXPOSURE

IF SWALLOWED, IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN. DO NOT INDUCE VOMITTING.

#### INHALATION EXPOSURE

IF INHALED, REMOVE EXPOSED TO FRESH AIR. IF BREATHING IS DIFFICULT, CALL A PHYSICIAN.

#### DERMAL EXPOSURE

IN CASE OF EXPOSURE, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER. CONSULT A PHYSICIAN.

#### EYE EXPOSURE

IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS.

## SECTION 5. ----- FIRE FIGHTING MEASURES -----

#### **EXTINGUISHING MEDIA**

SUITABLE: FOR SMALL (INCIPIENT) FIRES, USE MEDIA SUCH AS "ALCOHOL" FOAM, DRY CHEMICAL, OR CARBON DIOXIDE. FOR LARGE FIRES, APPLY WATER FROM AS FAR AS POSSIBLE. USE VERY LARGE QUANTITIES (FLOODING) OF WATER APPLIED AS A MIST OR SPRAY; SOLID STREAMS OF WATER MAY BE INEFFECTIVE. COOL ALL AFFECTED CONTAINERS WITH FLOODING QUANTITIES OF WATER.

## **FIREFIGHTING**

PROTECTIVE EQUIPMENT: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. SPECIFIC HAZARD(S): EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

# SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL EVACUATE AREA. ALLOW GAS TO DISSIPATE.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS, AND HEAVY RUBBER GLOVES. AVOID BREATHING VAPORS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION. BEWARE OF VAPORS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS.

#### METHODS FOR CLEANING UP

IF IT IS SAFE TO DO SO, LOCATE AND SHUT OFF THE SOURCE OF THE LEAKING GAS. PROPERLY LABEL THE DEFECTIVE CYLINDER, ISOLATE IT AND PREPARE TO RETURN IT TO THE MANUFACTURER IN ACCORDANCE WITH ALL APPLICABLE SHIPPING REGULATIONS. VENTILATE AREA.

# SECTION 7. ----- HANDLING AND STORAGE-----

#### HANDLING

USER EXPOSURE: AVOID INHALATION. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE.
USE EXPLOSION-PROOF EQUIPMENT. KEEP AWAY FROM SOURCES OF IGNITION. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE.
STORAGE

SUITABLE: STORE IN TIGHTLY CLOSED, AIRTIGHT, MOISTURE-PROOF CYLINDERS OR TANKS IN A COOL, DRY, WELL-VENTILATED AREA AWAY FROM HEAT, SOURCES OF IGNITION, AND SPARKS. PROTECT THE PRESSURIZED CONTAINERS FROM PHYSICAL DAMAGE.

## SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

#### **ENGINEERING CONTROLS**

SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: USE A FULL-FACE RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE ABEK (EN 166) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

HAND: PROTECTIVE GLOVES.

EYE: CHEMICAL SAFETY GOGGLES.

GENERAL HYGIENE MEASURES

WASH THOROUGHLY AFTER HANDLING.

# SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

#### APPEARANCE AND ODOR

CLEAR LIQUID.

PHYSICAL PROPERTIES

MELTING POINT -137 °C

BOILING POINT 31 °C @ 760 mmHg

FLASH POINT -48 °C LOWER EXPLOSION LIMIT 1.4 %(V)

VAPOR PRESSURE 516 mmHg at 20 °C DENSITY 0.65 g/ml @ 25 °C REFRACTIVE INDEX 1.378 @ 25 °C

#### SECTION 10. -----STABILITY AND REACTIVITY -----

#### **STABILITY**

STABLE: STABLE UNDER RECOMMENDED STORAGE CONDITIONS.

MATERIALS TO AVOID: STRONG OXIDIZING AGENTS.

CONDITIONS TO AVOID: HEAT, FLAMES AND SPARKS. EXTREMES OF TEMPERATURE AND DIRECT SUNLIGHT.

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON OXIDES.

HAZARDOUS POLYMERIZATION

HAZARDOUS POLYMERIZATION: MAY OCCUR.

## SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

#### ROUTE OF EXPOSURE

INHALATION: HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. INGESTION: HARMFUL IF SWALLOWED. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE.

SKIN: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. EYES: MAY CAUSE EYE IRRITATION.

# SIGNS AND SYMPTOMS OF EXPOSURE

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

## SECTION 12. ----- ECOLOGICAL INFORMATION -----

DATA NOT YET AVAILABLE.

#### SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

#### SECTION 14. ----- TRANSPORT INFORMATION -----

DOT

UN: 2459 - HC: 3 - PG: I

# SECTION 15. ----- REGULATORY INFORMATION -----

EU ADDITIONAL CLASSIFICATION

SYMBOL OF DANGER: F+, Xn

INDICATION OF DANGER: EXTREMELY FLAMMABLE. HARMFUL.

RISK STATEMENTS: 12-20/22-65

SAFETY STATEMENTS: 16-23-26-45-62

UNITED STATES REGULATORY INFORMATION

TSCA: LISTED ON TSCA INVENTORY; FOR R&D USE ONLY

# SECTION 16. ----- OTHER INFORMATION-----

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SYNQUEST LABS, INC. SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.