

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATHESON TRI-GAS, INC.
150 Allen Road Suite 302
Basking Ridge, New Jersey 07920
Information: 1-800-416-2505

Emergency Contact:
CHEMTREC 1-800-424-9300
Calls Originating Outside the US:
703-527-3887 (Collect Calls Accepted)

SUBSTANCE: BUTYL BENZENE

TRADE NAMES/SYNONYMS:

MTG MSDS 139; BUTYLBENZENE; 1-PHENYLBUTANE; N-BUTYLBENZENE; UN 2709;
MAT03530; RTECS CY9070000

CHEMICAL FAMILY: hydrocarbons, aromatic

CREATION DATE: Jan 24 1989

REVISION DATE: Dec 11 2008

2. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: BUTYL BENZENE
CAS NUMBER: 104-51-8
PERCENTAGE: 100

3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=2 FIRE=2 REACTIVITY=0



EMERGENCY OVERVIEW:

COLOR: colorless

PHYSICAL FORM: liquid

ODOR: odorless

MAJOR HEALTH HAZARDS: respiratory tract irritation, skin irritation, eye irritation, central nervous system depression

PHYSICAL HAZARDS: Combustible liquid and vapor.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation, vomiting, headache, symptoms of drunkenness, coma

LONG TERM EXPOSURE: lung damage

SKIN CONTACT:

SHORT TERM EXPOSURE: irritation, headache, symptoms of drunkenness

LONG TERM EXPOSURE: same as effects reported in short term exposure

EYE CONTACT:

SHORT TERM EXPOSURE: irritation, tearing

LONG TERM EXPOSURE: same as effects reported in short term exposure

INGESTION:

SHORT TERM EXPOSURE: vomiting, headache, symptoms of drunkenness, coma

LONG TERM EXPOSURE: lung damage

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

SKIN CONTACT: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: DO NOT induce vomiting. Never make an unconscious person vomit or drink fluids. If vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention.

NOTE TO PHYSICIAN: For inhalation, consider oxygen. For ingestion, consider gastric lavage, catharsis and activated charcoal slurry.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Severe fire hazard. Vapor/air mixtures are explosive above flash point. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back.

EXTINGUISHING MEDIA: regular dry chemical, carbon dioxide, water, regular foam

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny

entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Evacuation radius: 800 meters (1/2 mile). Do not attempt to extinguish fire unless flow of material can be stopped first. Flood with fine water spray. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

FLASH POINT: 160 F (71 C) (OC)
LOWER FLAMMABLE LIMIT: 0.8%
UPPER FLAMMABLE LIMIT: 5.8%
AUTOIGNITION: 770 F (410 C)
FLAMMABILITY CLASS (OSHA): IIIA

6. ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry.

7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

BUTYL BENZENE:

No occupational exposure limits established.

VENTILATION: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before

use.

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid

COLOR: colorless

ODOR: odorless

MOLECULAR WEIGHT: 134.21

MOLECULAR FORMULA: C₁₀-H₁₄

BOILING POINT: 356 F (180 C)

FREEZING POINT: -116 F (-82 C)

VAPOR PRESSURE: 1 mmHg @ 23 C

VAPOR DENSITY (air=1): 4.6

SPECIFIC GRAVITY (water=1): 0.9

WATER SOLUBILITY: insoluble

PH: Not available

VOLATILITY: Not available

ODOR THRESHOLD: Not available

EVAPORATION RATE: Not available

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

SOLVENT SOLUBILITY:

Miscible: alcohol, ether, benzene

10. STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep out of water supplies and sewers.

INCOMPATIBILITIES: oxidizing materials

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: miscellaneous decomposition products

POLYMERIZATION: Will not polymerize.

11. TOXICOLOGICAL INFORMATION

BUTYL BENZENE:

LOCAL EFFECTS:

Irritant: inhalation, skin, eye

TARGET ORGANS: central nervous system

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

INVERTEBRATE TOXICITY: 340 ug/L 48 hour(s) EC50 (Immobilization) Water flea (Daphnia magna)

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:

PROPER SHIPPING NAME: Butyl benzenes

ID NUMBER: UN2709

HAZARD CLASS OR DIVISION: 3

PACKING GROUP: III

LABELING REQUIREMENTS: 3

MARINE POLLUTANT: BUTYL BENZENE



CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

SHIPPING NAME: Butylbenzenes

UN NUMBER: UN2709

CLASS: 3

PACKING GROUP/CATEGORY: III

15. REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart B): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart C): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B

and C):

ACUTE: Yes

CHRONIC: No

FIRE: Yes

REACTIVE: No

SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29 CFR 1910.119): Not regulated.

STATE REGULATIONS:

California Proposition 65: Not regulated.

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION: Not determined.

NATIONAL INVENTORY STATUS:

U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CANADA INVENTORY (DSL/NDSL): Not determined.

16. OTHER INFORMATION

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