

Safety Data Sheet

File version: 1

MPD, 100%(v/v)

SDS Date: 01 Dec 2016

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 100%(v/v) MPD
SYNONYMS: (±)-2-Methyl-2,4-pentanediol
Hexylene glycol
PRODUCT CODES: 1008408
1008409
MANUFACTURER: Rigaku Reagents
ADDRESS: 9009 New Trails Drive
The Woodlands, TX 77381
USA
PHONE: +1 (281) 362-2300
EMAIL: ReagentOrders@Rigaku.com
CHEMICAL NAME: 2-Methyl-2,4-pentanediol
CHEMICAL FORMULA: C₈H₁₄O₂
PREPARED BY: Rigaku Reagents

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:**OSHA HAZARDS:** Target organ effect, irritant**TARGET ORGANS:** Central nervous system**GHS CLASSIFICATION:**

Acute toxicity, Oral (Category 5)

Skin irritation (Category 2)

Eye irritation (Category 2A)

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS**Signal word:** Warning**Hazard statement(s):**

H303 May be harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statement(s):

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

POTENTIAL HEALTH EFFECTS:**EYES:** Causes eye irritation.**SKIN:** May be harmful if absorbed through skin. Causes skin irritation.**INGESTION:** May be harmful if swallowed.**INHALATION:** May be harmful if inhaled. Causes respiratory tract irritation.**SECTION 2 NOTES:**

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS: 2-Methyl-2,4-pentanediol**2-METHYL-2,4-PENTANEDIOL:**

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<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>
107-41-5		≥ 99.0
	<u>ppm</u>	<u>mg/m3</u>
OSHA PEL CEILING:	25	125
ACGIH TLV CEILING:	25	121

SECTION 3 NOTES:**SECTION 4: FIRST AID MEASURES****EYES:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.**SKIN:** Wash off with soap and plenty of water. Consult a physician.**INGESTION:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.**INHALATION:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.**SECTION 4 NOTES:****SECTION 5: FIRE-FIGHTING MEASURES****FLASH POINT:**

F: 201 °

C: 94 °

AUTOIGNITION TEMPERATURE:

F: No data available

C: No data available

NFPA HAZARD CLASSIFICATION

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 0

HMIS HAZARD CLASSIFICATION

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 0

EXTINGUISHING MEDIA: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.**HAZARDOUS DECOMPOSITION PRODUCTS:** Hazardous decomposition products formed under fire conditions. - Carbon oxides.**SECTION 5 NOTES:** Not flammable or combustible.**SECTION 6: ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.**ENVIRONMENTAL PRECAUTIONS:** Do not let product enter drains.**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.**SECTION 6 NOTES:****SECTION 7: HANDLING AND STORAGE**

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HANDLING AND STORAGE: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Hygroscopic.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

EYE PROTECTION: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

SKIN PROTECTION: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

WORK HYGIENIC PRACTICES: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: clear, yellow

PHYSICAL STATE: clear liquid

pH AS SUPPLIED: No data available

pH (Other): 6.0 - 8.0

BOILING POINT:

F: 387 °

C: 197 °

FREEZING POINT:

F: -40 °

C: -40 °

VAPOR PRESSURE (mmHg): 0.02

@

F: 68 °

C: 20 °

VAPOR DENSITY (AIR = 1): 4.08

SPECIFIC GRAVITY (H₂O = 1): 0.925

@

F: 77 °

C: 25 °

EVAPORATION RATE: No data available

SOLUBILITY IN WATER: 118.2 g/L

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F: 68 °

C: 20 °

MOLECULAR WEIGHT: No data available

VISCOSITY: No data available

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F: No data available

C: No data available

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under recommended storage conditions.**CONDITIONS TO AVOID (STABILITY):** Avoid moisture.**INCOMPATIBILITY (MATERIAL TO AVOID):** Strong acids, strong oxidizing agents, strong reducing agents**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Hazardous decomposition products formed under fire conditions. - Carbon oxides. Other decomposition products - no data available.**SECTION 10 NOTES:**

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

ORAL LD50:	Rat - 3,700 mg/kg
INHALATION LC50:	No data available
DERMAL LD50:	Rabbit - 7,892 mg/kg

SKIN CORROSION/IRRITATION: Rabbit - Skin irritation - 24 h**SERIOUS EYE DAMAGE/EYE IRRITATION:** Rabbit - Severe eye irritation**RESPIRATORY OR SKIN SENSITIZATION:** No data available.**GERM CELL MUTAGENICITY:** No data available.**CARCINOGENICITY:**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE TOXICITY: No data available.**SECTION 11 NOTES:** No data available.

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY:**TOXICITY TO FISH:** LC50 - Pimephales promelas (fathead minnow) - 10,700 mg/l - 96 h**TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES:** EC50 - Daphnia magna (Water flea) - 3,200 mg/l - 48 h**PERSISTENCE AND DEGRADABILITY**

No data available.

BIOACCUMULATIVE POTENTIAL

No data available.

MOBILITY IN SOIL

No data available.

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PBT AND vPvB ASSESSMENT

No data available

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

PRODUCT: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

CONTAMINATED PACKAGING: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

Not dangerous goods

WATER TRANSPORTATION

Not dangerous goods

AIR TRANSPORTATION

Not dangerous goods

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

OSHA HAZARDS: Target organ effect, highly toxic by inhalation, highly toxic by ingestion, toxic by skin absorption, carcinogen

SARA 302 COMPONENTS: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 COMPONENTS: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 HAZARDS: Acute health hazard, chronic health hazard

MASSACHUSETTS RIGHT TO KNOW COMPONENTS:

	<u>CAS-No.</u>
2-Methylpentane-2,4-diol	107-41-5

PENNSYLVANIA RIGHT TO KNOW COMPONENTS:

	<u>CAS-No.</u>
2-Methylpentane-2,4-diol	107-41-5

NEW JERSEY RIGHT TO KNOW COMPONENTS:

	<u>CAS-No.</u>
2-Methylpentane-2,4-diol	107-41-5

CALIFORNIA PROP. 65 COMPONENTS: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 15 NOTES:

SECTION 16: OTHER INFORMATION

DISCLAIMER: The above information is believed to be correct but does not necessarily include all information and should be used only as a guide. The information in this document is based on our current knowledge and applies to the product with regard to appropriate safety precautions. This document

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does not represent any guarantee of the properties of the product. Rigaku Reagents will not be held liable for any damage resulting from handling or contact with the above product.