

Safety Data Sheet

File version: 1

Hexanediol-1,6, 50%(w/v)

SDS Date: 29 Nov 2016

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 50%(w/v) 1,6-Hexanediol
SYNONYMS: Hexamethylene glycol
 1,6-Dihydroxyhexane
 1,6-Hexylene glycol
 Hexamethylenediol
 HDO
PRODUCT CODES: 1008028
 1008029
MANUFACTURER: Rigaku Reagents
ADDRESS: 9009 New Trails Drive
 The Woodlands, TX 77381
 USA
PHONE: +1 (281) 362-2300 x 502
EMAIL: ReagentOrders@Rigaku.com

CHEMICAL NAME: Hexamethylene glycol
CHEMICAL FORMULA: C₆H₁₄O₂

PREPARED BY: Rigaku Reagents

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

OSHA HAZARDS: No known OSHA hazards.

GHS CLASSIFICATION:

Acute toxicity, Oral (Category 5)
 Acute toxicity, Dermal (Category 5)

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

Signal word: Warning

Hazard statement(s):

H303 + H313 May be harmful if swallowed or in contact with skin.

Precautionary statement(s):

none

POTENTIAL HEALTH EFFECTS:

EYES: May cause eye irritation.

SKIN: May be harmful if absorbed through skin. May cause skin irritation.

INGESTION: May be harmful if swallowed.

INHALATION: May be harmful if inhaled. May cause respiratory tract irritation.

SECTION 2 NOTES:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS: Hexane-1,6-diol, De-ionized water

HEXANE-1,6-DIOL:

CAS NO.
629-11-8

% WT
48-52

% VOL

SECTION 3 NOTES:

Safety Data Sheet

File version: 1

Hexanediol-1,6, 50%(w/v)

SDS Date: 29 Nov 2016

SECTION 4: FIRST AID MEASURES

EYES: Flush eyes with water as a precaution.**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: 216 °

C: 102 °

AUTOIGNITION TEMPERATURE:

F: 608 °

C: 320 °

NFPA HAZARD CLASSIFICATION

HEALTH: 0

FLAMMABILITY: 1

REACTIVITY: 0

HMS HAZARD CLASSIFICATION

HEALTH: 1

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.**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 appropriately. Keep in suitable, closed containers for disposal.**SECTION 6 NOTES:**

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Keep container tightly closed in a dry and well-ventilated place. Light sensitive.**SECTION 7 NOTES:**

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Safety Data Sheet

File version: 1

Hexanediol-1,6, 50%(w/v)

SDS Date: 29 Nov 2016

RESPIRATORY PROTECTION: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

EYE PROTECTION: 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. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place, 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, colorless

PHYSICAL STATE: liquid, clear

pH AS SUPPLIED: No data available

pH (Other): 5.7

BOILING POINT:

F: 482 °

C: 250 °

FREEZING POINT:

F: 100 - 108 °

C: 38 - 42 °

VAPOR PRESSURE (mmHg): < 0.01 mmHg

@

F: 68 °

C: 20 °

VAPOR DENSITY (AIR = 1): No data available

SPECIFIC GRAVITY (H₂O = 1): 0.96 g/cm³

@

F: 68 °

C: 20 °

EVAPORATION RATE: No data available

SOLUBILITY IN WATER: No data available

MOLECULAR WEIGHT: 118.17 g mol⁻¹

VISCOSITY: No data available

@

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): No data available

Safety Data Sheet

File version: 1

Hexanediol-1,6, 50%(w/v)

SDS Date: 29 Nov 2016

INCOMPATIBILITY (MATERIAL TO AVOID): Acid chlorides, acid anhydrides, oxidizing agents, chloroformates, reducing agents**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Hazardous decomposition products formed under fire conditions. - Carbon oxides**SECTION 10 NOTES:**

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

ORAL LD50: rat - 3,000 mg/kg
INHALATION LC50: rat - 8 h - 3.3 mg/L
DERMAL LD50: rabbit - > 2,500 mg/kg

SKIN CORROSION/IRRITATION: rabbit - No skin irritation - 24 h - Draize Test.**SERIOUS EYE DAMAGE/EYE IRRITATION:** rabbit - No eye irritation - 24 h - Draize Test**RESPIRATORY OR SKIN SENSITIZATION:** Maximisation Test - guinea pig - OECD Test Guideline 406 - Did not cause sensitization on laboratory animals.**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:**

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY:**TOXICITY TO FISH MORTALITY LC50:** Leuciscus idus (Golden orfe) - 4,640 - 10,000 mg/l - 96 h; Method: DIN 38412**TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES:** Immobilization EC50 - Daphnia magna (Water flea) - > 500 mg/l - 48 h;
Method: Directive 67/548/EEC, Annex V, C.2.**TOXICITY TO ALGAE:** Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) - 5,940 mg/l - 72 h**TOXICITY TO BACTERIA:** Growth inhibition IC50 - Pseudomonas putida - > 10,000 mg/l - 17 h**PERSISTENCE AND DEGRADABILITY:** Biodegradability aerobic Result: 95 % - Readily biodegradable. Method: OECD Test Guideline 301**BIOACCUMULATIVE POTENTIAL**

No data available.

MOBILITY IN SOIL

No data available

PBT AND vPvB ASSESSMENT

No data available

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

Safety Data Sheet

File version: 1

Hexanediol-1,6, 50%(w/v)

SDS Date: 29 Nov 2016

PRODUCT: Offer surplus and non-recyclable solutions to a licensed disposal company.**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: No known OSHA hazards**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:** No SARA hazards**MASSACHUSETTS RIGHT TO KNOW COMPONENTS:**

No components are subject to the Massachusetts Right to Know Act.

PENNSYLVANIA RIGHT TO KNOW COMPONENTS:

	<u>CAS-No.</u>
Hexane-1,6-diol	629-11-8
Water	7732-18-5

NEW JERSEY RIGHT TO KNOW COMPONENTS:

	<u>CAS-No.</u>
Hexane-1,6-diol	629-11-8
Water	7732-18-5

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 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.