

SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

Product name : PI-6673-002
 Reference number : CPS-W-0327G22E
 Recommended use of the chemical and restrictions on use : Electronic materials; Do not use it other purposes.
 Manufacturer name : JNC CORPORATION IT & Materials Division
 Address : Shin-Otemachi Bldg., 2-1, Otemachi 2-Chome, Chiyoda-Ku, Tokyo, Japan
 Telephone/Fax : +81-3-3243-6190 / +81-3-3243-6069
 Supplier name : JNC America, Inc.
 Address : 555 Theodore Fremd Avenue, Suite C-206 Rye, New York 10580 USA
 Telephone : +1-914-921-5400
 Emergency contact : JNC PETROCHEMICAL CORPORATION Ichihara Research Laboratories
 5-1, Goi Kaigan, Ichihara, Chiba, 290-8551, Japan
 +81-436-23-5611 (workdays: 9:00 - 17:00)

2. Hazards identification

GHS classification

Flammable liquids : Category 4
 Skin corrosion/irritation : Category 2
 Serious eye damage/eye irritation : Category 2
 Specific target organ toxicity (Repeated exposure) : Category 2(Kidney, Liver)

*) The hazards without the above mention are "Not applicable", "Not classified" or "Classification not possible".

GHS label element

Pictograms :



Signal word : Warning

Hazard statement

H227 Combustible liquid
 H315 Causes skin irritation
 H319 Causes serious eye irritation
 H373 May cause damage to Kidney, Liver through prolonged or repeated exposure

Precautionary statement

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P264 Wash hands thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P370+P378 In case of fire: Use appropriate media to extinguish.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314 Get medical advice/attention if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

Storage : None

Disposal

P501 Dispose of contents/container in accordance with local/ regional/ national/ international regulations.

Other hazards which do not result in classification : No data available

3. Composition/information on ingredients

Single chemical substance or mixture : Mixture

Chemical name or common name : Polymer solution

Ingredients and content

Name of ingredients	CAS No.	content [wt%]	Chemical or structural formula
Polymer	Trade secret	20-30	—
Diethylene glycol ethyl methyl ether (EDM)	1002-67-1	20-30	C ₂ H ₅ OCH ₂ CH ₂ OCH ₂ CH ₂ OCH ₃
3-Methoxy-N,N-dimethylpropanamide (MDMPA)	53185-52-7	50-60	C ₆ H ₁₃ NO ₂

The chemical name and CAS number of ingredients are confidential business information.

4. First-aid measures

IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF ON SKIN : Take off immediately all contaminated clothing. Wash skin with plenty of water and soap.

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

IF INGESTED : Rinse mouth with water.

*) For above cases, take emergency measures and then, get medical advice/attention.

Most important symptoms/effects

: [Skin] Redness. Pain. Burning sensation.

[eye] Redness. Pain.

5. Fire-fighting measures

Suitable extinguishing media : Water spray, alcohol-resistant foam, dry powder, carbon dioxide, dry sand.

Unsuitable extinguishing media : No data available.

Specific hazards arising from the mixture : May ignite by heat, sparks and flames. Irritant, toxic or corrosive gas / dust / fume / mist / vapours may be generated in a fire. These gases are flammable and may be explosive.

Specific fire-fighting procedures : Work from the windward side during fire-fighting. Move movable containers to safe place. When containers cannot be moved, keep surroundings cool with spray water.

Special protective equipment for precautions for fire-fighting : Wear air respirators, protective clothing (heat-resistant) during fire fighting.

6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures : Isolate spill or leak area immediately for appropriate distance in all directions. Keep unauthorized personnel away. Workers shall wear personal protective equipment such as eye protection, protective gloves, long-sleeve working clothes, face protection and a mask, and avoid contact with eyes and skin, inhalation and intake by mistake.
- Environmental precautions : Avoid release to the environment. Do not allow flow into rivers.
- Method and materials for containment and cleaning up : Absorb with dry soil, sand or noncombustible material, and collect into sealable containers. Always wear personal protective equipment upon working, and work in the windward.
- Secondary disaster prevention measures : Remove all sources of ignition around the area to prevent secondary disaster such as fire, etc. (NO smoking, NO sparks, NO flames in the vicinity.) Make provision of suitable fire extinguishers against case of ignition.

7. Handling and storage

- Precautions for safe handling : Keep away from heat, sparks, open flames, or hot surfaces, and avoid use of other equipment which may be ignition sources. Wear suitable protective equipment to prevent inhalation or contact with eyes, skin and clothing.
- Handle within local exhaust ventilation when working indoors. Take precautionary measures against static discharge. Apply engineering controls described in "Section 8. Exposure Controls/Personal Protection." See "Section 10. Stability and reactivity" for incompatible materials.
- Do not eat, drink or smoke during working. Wash hands thoroughly after handling the product.
- Conditions for safe storage : Store product containers locked up in an explosion-proof refrigerator at -25°C to -15°C under a closed state. Use sealable the container made of polyethylene.

8. Exposure controls/personal protection

- Control parameters : Not specified as the product.
- ACGIH (2012) : No data available
- Appropriate engineering controls : Use explosion-proof electrical/ventilating equipment/lighting. Needed to take precautionary measures against static discharge, such as electrostatic shoes. Perform ventilation for exhaust so as to avoid inhalation of vapors or mist in air. Provide eye wash and body flushing facilities in working place for storing or handing this product.
- Seal the process, use local exhaust ventilation and other engineering controls for preventing inhalation of vapors or the like generated from the product.
- Individual protection measures, such as personal protective equipment
- Respiratory protection : The mask is recommended to be done so as not to inhale it.
- Hand protection : Heavy-duty protective gloves resistant to solvents in the ingredients (gloves made from polyethylene, polypropylene, silicone rubber or the like).
- Eye protection : Suitable eye protection (protective spectacles having a significant mist sealing effect, such as a goggle type).
- Skin and body protection : Long sleeve working clothes and antistatic work shoes.

9. Physical and chemical properties

- Physical state : Liquid
- Color : Clear colored

Odor	: Characteristic odor
Odor threshold	: No data available
pH	: This item cannot be substantially measured, because it's solubility in water is low.
Melting point [°C]	: No data available
Boiling point and boiling range [°C]	: 176 (Supplier SDS)
Flash point [°C]	: 63.1 (Minimum)
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper/lower flammability or explosive limits [vol %]	: 1.1–34
Vapor pressure [Pa]	
EDM	: 319 (25°C, estimated) (SRC, Access on Apr. 2016)
MDMPA	: 75.5 (20°C) (Supplier SDS)
Vapor density	: No data available
Relative density	: Ca. 1
Solubility	: No data available
Partition coefficient (n-octanol/water) [Log Pow]	: No data available
Auto-ignition temperature [°C]	: 169 (Supplier SDS)
Decomposition temperature [°C]	: No data available
Viscosity	: No data available

10. Stability and reactivity

Reactivity	: No data available
Chemical stability	: Stable when stored at –25 to –15°C.
Possibility of hazardous reactions	: Decomposes on heating and on burning. Reacts with strong oxidants. This generates fire and explosion hazard.
Conditions to avoid	: Heat, open flames, hot surfaces, sparkover, static discharge, other ignition sources.
Incompatible materials	: Strong oxidants, strong bases, strong acids
Hazardous decomposition products	: No data available

11. Toxicological information

Acute toxicity (Oral)	
EDM	: LD50=6,500 µ L/kg (Rat) (Supplier SDS)
MDMPA	: LD50>2,000mg/kg (OECD TG423, Rat) (ECHA)
Acute toxicity (Dermal)	
EDM	: LD50=7,070 µ L/kg (Rabbit) (Supplier SDS)
MDMPA	: LD50>2,000mg/kg (OECD TG402, Rat) (ECHA)
Acute toxicity (Inhalation : Gases)	: Not applicable
Acute toxicity (Inhalation : Vapours)	: No data available
Acute toxicity (Inhalation : Dusts and Mists)	: No data available
Skin corrosion/irritation	
EDM	: P.I.I.=2.5/4h (rabbit) (Supplier SDS)
MDMPA	: not irritating (OECD TG404, rabbit) (ECHA)
Serious eye damage/eye irritation	
MDMPA	: Slightly irritating (OECD TG405, rabbit) (Supplier SDS)
Respiratory sensitization	: No data available
Skin sensitization	
MDMPA	: not sensitizing (OECD TG429, Mouse) (ECHA)

Germ cell mutagenicity

EDM : Ames test: negative, Chromosome Aberration Test: negative
(Japan Existing Chemical Data Base, Access on Apr. 2016)

MDMPA : Ames test: negative, Chromosome Aberration Test: negative (J-CHECK)

Carcinogenicity : This product is not listed by IARC, EPA, EU, NTP, ACGIH or JSOH as a carcinogen.

Reproductive toxicity : No data available

Specific target organ toxicity (Single exposure) : No data available

Specific target organ toxicity (Repeated exposure)

MDMPA : May cause damage to organs through prolonged or repeated exposure (ECHA)

Aspiration hazard : No data available

12. Ecological information

Ecotoxicity

EDM : LC50(96h)>200mg/L (Cyprinus carpio) (Supplier SDS)

MDMPA : EC50(48h)>100mg/L (Daphnia magna) (Supplier SDS)

Persistence and degradability

EDM : No biodegradable (Supplier SDS)

MDMPA : Biodegradation(BOD)=1% (OECD TG301C : 28days) (J-CHECK)

Bioaccumulative potential

EDM : Log Pow=0.01 (estimated) (SRC, Access on Apr. 2016)

Mobility in soil : No data available

Other adverse effects : No data available

13. Disposal considerations

Observe all federal, state, and local regulations when disposing of this substance. Dispose of empty containers after completely removing contents. Do not dispose of waste into sewer.

14. Transport information

UN Number : None

UN Proper Shipping Name : None

Transport hazard class : None

Packing group : None

Marine pollutant (Yes/No) : No

Specific transport measures and precautionary conditions : Confirm whether there is leakage in the container before transporting. Load luggage so as not to cause the fall and the tumble and the damage. Prevent the collapse of cargo piles.

General information : Depending on the applicable transport regulation (such as: IMO-IMDG code, ICAO-TI / IATA-DGR).

15. Regulatory information

The Montreal Protocol on Substances that Deplete the Ozone Layer : Not applicable

The Stockholm Convention on Persistent Organic Pollutants : Not applicable

The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade : Not applicable

U.S. TSCA Inventory : All components of this product are listed, or excluded from listing, on TSCA inventory except for some ingredients.

16. Other information

Issue Date : 2022/07/29

Revision Date : 2022/07/29

Version : PE22v005

Source of Data : References are described in each data.

Note on the information in the Safety Data Sheet (SDS)

- : The SDS is prepared based on the currently available latest materials and data, but is not always perfect.
- : The SDS may be revised based on new information.
- : The precautionary statements in the SDS are appropriate under conditions of normal handling, and when users specially handle the product, the users shall confirm the safety.
- : Each numerical value provided in the SDS is not a guaranteed value.