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Issue Date :

MATERIAL SAFETY DATA SHEET(JURA Model)**1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION**

PRODUCT NAME : Polyoxypropylenetriol 3000

PRODUCT CODE :

COMPANY IDENTIFICATION

Company name : Japan Urethane Raw Materials Association

Address :

Department :

Telephone :

Emergency telephone :

Fax :

e-mail address :

MSDS No. : 0330

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE :

Polyurethane raw materials (flexible foam, semi-rigid foam, elastomer, glue, etc.)

2. HAZARD IDENTIFICATION**GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE****PHYSICAL HAZARDS**

- Explosives : Not applicable
- Flammable gases : Not applicable
- Flammable aerosols : Not applicable
- Oxidizing gases : Not applicable
- Gases under pressure : Not applicable
- Flammable liquids : Not classified
- Flammable solids : Not applicable
- Self-reactive substances and mixtures : Not applicable
- Pyrophoric liquids : Not classified
- Pyrophoric solids : Not applicable
- Self-heating substances and mixtures : Classification not possible
- Substances and mixture which, in contact with water, emit flammable gases : Not applicable
- Oxidizing liquids : Not applicable
- Oxidizing solids : Not applicable
- Organic peroxides : Not applicable
- Corrosive to metals : Not classified

HEALTH HAZARDS

- Acute toxicity (oral) : Not classified
- Acute toxicity (skin) : Classification not possible
- Acute toxicity (inhalation: gas) : Not applicable
- Acute toxicity (inhalation: vapour) : Classification not possible
- Acute toxicity (inhalation: dust, mist) : Classification not possible
- Skin corrosion / irritation : Classification not possible
- Serious eye damages / eye irritation : Classification not possible
- Respiratory sensitization : Classification not possible
- Skin sensitization : Classification not possible
- Germ cell mutagenicity : Classification not possible
- Carcinogenicity : Classification not possible
- Reproductive toxicity : Classification not possible
- Specific target organ toxicity; single exposure : Classification not possible
- Specific target organ toxicity; repeated exposure : Classification not possible
- Aspiration hazard : Classification not possible

ENVIRONMENTAL HAZARDS

- Aquatic toxicity (acute) : Classification not possible
- Aquatic toxicity (chronic) : Classification not possible

GHS LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS

SYMBOL : —

SIGNAL WORD : —

HAZARD STATEMENT : —

PRECAUTIONARY STATEMENTS

【Prevention】

- Do not handle until all safety precautions have been read and understood.
- Obtain special instructions before use.
- Do not eat, drink or smoke when using this product.
- Avoid inhaling, swallowing, contacting to skin and eye. Wear protective gloves / protective clothing / eye protection / face shield.
- Wash hands thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Keep away from flames.

【Response】

- If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- If swallowed: Rinse mouth with water. Do not induce vomiting.
- If on eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If on skin: Wash with plenty of soap and water.
- If on skin (or hair): Remove / take off immediately all contaminated clothing.

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- Rinse skin with water / shower.
- Wash contaminated clothing before reuse.
- If exposed or concerned: Get medical advice/attention.
- Seek medical advice/attention if you feel unwell.
- In case of fire: Use dry chemical powder, carbon dioxide, foam, large volume of water spray for larger fires.

【Strage】

- Store container tightly closed in well-ventilated place.

【Disposal】

- Dispose of contents / container to waste in accordance with local / regional / national / international regulations (to be specified).

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE	: substance
CHEMICAL NAME	: Aliphatic trihydric alcohol type polyether triol
COMPONENTS AND CONTENTS	: Aliphatic trihydric alcohol type polyether triol >98%
METI No.	: (7)-758
ISHA No.	: Existing
CAS No.	: 25791-96-2
HAZADOUS INGREDIENT(s)	: —

4. FIRST AID MEASURES**IF INHALED**

- Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Get medical advice/attention immediately.
- Receive the doctor's examination promptly when the cough and phlegm, etc. are awful.

IF ON SKIN

- Remove/Take off immediately all contaminated clothing.
- Wash with soap and water.
- Rinse skin with water/shower.
- If skin irritation/rash occurs or feel unwell, seek medical advice/attention.
- Take of contaminated clothing and wash before reuse.

IF IN EYES

- Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
- If eye irritation persists, get medical advice/attention.
- Even if it is very small amount contact, rinse by clean water for 15 minutes or more, and seek ophthalmologist's advice/attention.

IF SWALLOWED

- After rinse mouth immediately, give about 250 ml of water or milk and thin in the stomach, and do not vomit forcibly.
- Moreover, do not give anything from the mouth to the patient when not conscious.

- Receive the doctor's treatment (stomach pump) promptly.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA :

Dry chemical powder, carbon dioxide, foam, large volume of water spray in case of larger fire

UNSUITABLE EXTINGUISHING MEDIA : Water jet

SPECIFIC EXTINCTION METHOD

- For initial stage extinction, carbon dioxide or dry chemical powder.
- When a fire extends, fire is extinguished by a large amount of water spray.
- Water is drained off to the drum equipment etc. that have not ignited, and it tries to prevent spreading, overheating and explosion of containers.

SPECIAL PROTECTIVE FOR FIRE- FIGHTERS

- In the extinction work, an appropriate protective equipment (gloves, glasses, and mask) has to be worn.
- Because during a fire, hazardous gases may be generated, fire-fighters have to wear self-contained breathing apparatus and other protective equipment.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

- Evacuate personnel without wearing protective equipment. Put on protective equipment. Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS

- Do not throw the leakage thing directly into environment

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

- Collect spillage as much as possible after preventing spillage from further spreading out by means of covering with sand, saw dust etc.
- Collected waste should be disposed in chapter "13 DISPOSAL CONSIDERATION"

7. HANDLING AND STORAGE

HANDLING

TECHNICAL MEASURE

- Wear protective equipment measures described in "Chapter 8. EXPOSURE CONTROL / PERSONAL PROTECTION", and wear an appropriate protective equipment.
- The local exhaust device is set up in the indoor handling.

NOTES

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not contact/breathe/swallowing.
- Wash hands thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Do not eat, drink or smoke when using this product.

SAFETY TREATMENT NOTES

- Wash hands, face, etc. thoroughly after handling.
- Always has a stock of enough personal protectors for emergency.
- Take care of falling or tumble for handling containers.

CONTACT AEVASION

- Refer to 10. STABILITY AND REACTIVITY

STORAGE**TECHNICAL MEASURE**

- Store container tightly closed in well-ventilated place.
- An indoor storehouse should be built by a fireproof construction and having well ventilation.
- Its floor should be made of impermeable materials.
- The equipment of a lighting and a lighting necessary to handle it is installed.

APPROPRIATE SAFEKEEPING CONDITION

- Store container tightly closed in well-ventilated place.
- Store locked up.
- An off-limits sign is posted excluding the fire strict prohibition and parties concerned.

INCOMPATIBLE SUBSTANCES

- Refer to 10. STABILITY AND REACTIVITY

PACKAGING MATERIALS

- Containers which are prescribed in Fire and Disaster Management Act and UN transport regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**FACILITY AND EQUIPMENT MEASURES**

- Facilities in where this material is handled should be structured by the perfectly closed system.
Should be established the adequate local exhauster in the indoor working area where steam or the mist occurs.
- The worker wears an appropriate protection tool and works. Moreover, the equipment for the eye washing and the body washing is installed near the handling place.
- The worker wears an appropriate guard and works. Make available emergency safety shower and eye wash in the work area. The floor should be made of impermeable materials.

CONTROL LIMIT : Not established

OCCUPATIONAL EXPOSURE LIMITS

- J. Soc. Occup.Health : Not established (2009) ⁴⁾
- ACGIH : Not established (2010) ⁵⁾

PERSONAL PROTECTIVE EQUIPMENT

- Hand protection : Safety gloves made from rubbers or plastics (impermeable).
- Eye protection : Protection glasses with shroud
- Skin and body protection : Long sleeve work clothes and work shoes

HYGIENE MEASURES

- After handling, it is washed one's hands well.
- Polluted the work clothes are not put out from the workshop.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: Colourless
Odour	: Polyether odour
pH	: Approx. 6.5
Pour point	: Approx. -30°C
Boiling point	: No data
Flash point	: 230°C (COC)
Explosion properties	: No data
Vapor pressure	: No data
Vapor density	: No data
Specific gravity	: 1.012 (20°C)
Solubility	: Water : Insoluble Organic solvents (esters, ketons) : Soluble
Octanol/water partition coefficient	: No data
Ignition point	: No data
Decomposition temperature	: No Data
Viscosity	: Approx. 500 mPa·s(25°C)

10. STABILITY AND REACTIVITY

STABILITY : In a usual handling condition, chemically stable against light, heat, and the impact.

REACTIVITY : —

POSSIBILITY OF HAZARDOUS REACTIONS : —

INCOMPATIBLE MATERIALS : —

HAZARDOUS DECOMPOSITION PRODUCTS : —

11. TOXICOLOGICAL INFORMATION**ACUTE TOXICITY [ORAL]**

It made it from LD50=10g/kg or more (mouse) "Not classified". ⁶⁾

ACUTE TOXICITY [SKIN]

There was no information and it was assumed, "Classification not possible"

ACUTE TOXICITY [INHALATION (GAS)]

Because this item was a liquid, "Not applicable,".

ACUTE TOXICITY [INHALATION (VAPOUR)]

There was no information and it was assumed, "Classification not possible"

ACUTE TOXICITY [INHALATION(DUST,MIST)]

There was no information and it was assumed, "Classification not possible"

SKIN CORROSION/IRRITATION

There was no information and it was assumed, "Classification not possible"

SERIOUS EYE DAMAGE/EYE IRRITATION

May cause eye irritant. But there was no information and it was assumed, "Classification not possible"

RESPIRATORY SENSITIZATION

There was no information and it was assumed, "Classification not possible"

SKIN SENSITIZATION

There was no information and it was assumed, "Classification not possible"

GERM CELL MUTAGENICITY

May be NEGATIVE, because similar substance POLYPROPYLENEGLYCOL is NEGATIVE on MUTAGENICITY test.

CARCINOGENICITY

There was no information and it was assumed, "Classification not possible"

JSOH : None of component of this product is listed as a carcinogen. ⁴⁾

IARC : None of component of this product is listed on IARC Monographs. ⁷⁾

REPRODUCTIVE TOXICITY

There was no information and it was assumed, "Classification not possible"

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE

There was no information and it was assumed, "Classification not possible"

SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE

There was no information and it was assumed, "Classification not possible"

ASPIRATION HAZARD

There was no information and it was assumed, "Classification not possible"

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY[ACUTE]

There was no information and it was assumed, "Classification not possible"

(Reference) 48hrLC50=630mg/L (oryzias latipes) ⁸⁾

AQUATIC TOXICITY [CRONIC] : Not classified

There was no information and it was assumed, "Classification not possible"

(Reference) 0% by BOD ⁸⁾

(Reference) BCF \leq 0.7—2.2(6mg/L, 6y,cuprinus carpio) ⁸⁾

13. DISPOSAL CONSIDERATIONS

THE REMAINDER WASTE

- Dispose of contents/container to waste treatment company having the official approval of regulation.
- After danger and the hazardous property are notified enough to waste treatment company, processing is consigned when the processing of waste is consigned.

POLLUTION CONTAINER AND PACKING

- The container is recycled after cleaned, or is disposed of appropriately according to the standard of related regulations and the local government.
- Remove contents completely when you abandon an empty container.

14. TRANSPORT INFORMATION

INTERNATIONAL REGULATIONS

Land : Transport in accordance with your country and regions regulations (RID,ADR, DOT etc.).

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Sea : Transport in accordance with IMDG Code.
Air : Transport in accordance with ICAO-TI/IATA-DGR.
UN number : Not applicable
Hazard class : Not applicable
Domestic Regulations : Transport in accordance with local regulation.
Emergency response guideline number : 171

15. REGULATORY INFORMATION

Fire and Disaster Management Act (Fire Service Law)

Dangerous Substances : Class 4, 4th Petroleum

16. OTHER INFORMATION

REFERENCES

1. Outline of Polyurethane Raw Material Industry (JURA) (2005)
2. Polyurethane Raw Material -Guideline of Safe treatment-(JURA) (2008)
3. Guideline of Transportation Management of Polyol (PPG) (JURA) (2009)
4. Journal of Occupational Health (JSOH)(2009/9)
5. 「TLVs AND BEIs」 (2010) (ACGIH)
6. Registry of Toxic Effects of Chemical Substance 2003 (CCOHS , 2003)
7. IARC Monographs (2006)
8. Data of Existing Chemicals Based on the CSCL Japan (CERI) (2001)

All specifications are to be created based on the information we can get at this time may be revised by new knowledge.

The content, the physico-chemical property and so on are not a guaranteed-performance.

Notes are usually aimed at handling. If special handling, usage, please Usage for safety measures.

CONTACT

Company :

Department :