

Date of issue: 28/02/2017

Safety Data Sheet

 Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: Glucose Product code(SDS NO): 64221jis_E2-1
 Details of the supplier of the safety data sheet Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD. Address: 1-6, Ohmano-Cho, Koshigaya, Saitama 343-0844, Japan Division: Quality Assurance Department Telephone number: +81-48-986-6161 FAX: +81-48-989-2787 e-mail address: shiyaku-t@junsei.co.jp

2. Hazards identification

GHS classification and label elements of the product Classification of the substance or mixture (Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

 Composition/information on ingredients Substance/Mixture:

Substance/ Mixt

Ingredient name:Glucose Chemical formula:C6H12O6 Chemicals No, Japan:8-46 CAS No.:50-99-7 MW:180.16 ECNO:200-075-1

4. First-aid measures

Descriptions of first-aid measures

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

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IF ON SKIN (or hair)
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Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation or rash occurs: Get medical advice/attention.

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.

IF SWALLOWED

Rinse mouth.

Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media



Suitable extinguishing media In case of fire, use water mist, foam, dry powder, CO2. Specific hazards arising from the substance or mixture Containers may explode when heated. Fire may produce irritating, corrosive and/or toxic gases. Advice for firefighters Specific fire-fighting measures Evacuate non-essential personnel to safe area. Special protective equipment and precautions for fire-fighters Wear fire/flame resistant/retardant clothing. Wear protective gloves/protective clothing/eye protection/face protection. Firefighters should wear self-contained breathing apparatus with full face peace operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures
Ventilate area after material pick up is complete.
Wear proper protective equipment.
Environmental precautions
Avoid release to the rivers, lakes, ocean, groundwater.
Methods and materials for containment and cleaning up
Sweep up, place in a bag and hold for waste disposal.
Preventive measures for secondary accident
Collect spillage.

7. Handling and storage

Precautions for safe handling Preventive measures (Protective measures against fire & explosion) Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Exhaust/ventilator Exhaust/ventilator should be available. Safety treatments Avoid contact with skin. Avoid contact with eyes. Avoid breathing dust or mist. Safety Measures/Incompatibility Wear protective gloves, protective clothing or face protection. Use personal protective equipment as required. When using do not eat, drink or smoke. Conditions for safe storage, including any incompatibilities Recommendation for storage Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight.

 Exposure controls/personal protection Control parameters No control value data available Adopted value No Adopted value data available



Exposure controls

Appropriate engineering controls Do not use in areas without adequate ventilation. Eye wash station should be available. Washing facilities should be available. Individual protection measures Respiratory protection Wear respiratory protection. Hand protection Wear protective gloves. Eye protection Wear eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties Physical properties Appearance: Crystalline powder Color: White Odor: None pH data N.A. Phase change temperature Initial Boiling Point/Boiling point data N.A. Melting point/Freezing point: 146°C Decomposition temperature data N.A. Flash point data N.A. Auto-ignition temperature: ca. 500°C Explosive properties data N.A. Vapor pressure data N.A. Vapor density data N.A. Specific gravity/Density: 1.544 Solubility Solubility in water: 479g/liter(20°C) n-Octanol /water partition coefficient: log Pow-3.3

10. Stability and Reactivity

Chemical stability Stable under normal storage/handling conditions. Possibility of hazardous reactions May form explosive dust-air mixtures. Reacts violently with strong oxidants. Conditions to avoid Contact with incompatible materials. Open flames. Heat. Incompatible materials Strong oxidizing agents Hazardous decomposition products Carbon oxides

11. Toxicological Information Information on toxicological effects Acute toxicity



Acute toxicity (Oral), Product rat LD50=25800 mg/kg (HSDB) No Irritant properties data available No Allergenic and sensitizing effects data available No Mutagenic effects data available No Carcinogenic effects data available No reproductive toxicity data available No STOT-single/repeated exposure data available No Aspiration hazard data available

12. Ecological Information Toxicity No Aquatic toxicity data available Water solubility 479g/L (20°C) (HSDB) No Persistence and degradability data available Bioaccumulative potential log Pow=-3.3 (ICSC, 1998)

13. Disposal considerations

Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

14. Transport Information UN No, UN CLASS Not applicable to UN NO. Transport in bulk according to Annex II of MARPOL73/78 and IBC Code Non Noxious Liquid ; Cat. OS…Glucose

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture US major regulations

TSCA

Glucose

Other regulatory information

We are not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility. Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012) 2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT) 2016 TLVs and BEIs. (ACGIH)



http://monographs.iarc.fr/ENG/Classification/index.php Supplier's data/information

Chemical Risk Information Platform (CHRIP)(NITE) http://www.safe.nite.go.jp/japan/db.html GHS Classification Guidance for Enterprises 2013 Revised Edition (August, 2013,METI) General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2015).