

## Material Safety Data Sheet

### 1. Product and Company Identification

Product name :GLU-GLUE U#805 (B Liquid)

Name of supplier :SOLAR CO., LTD.

Address :1-7, Nunobiki-cho-2-chome, Chuo-ku, Kobe, Hyogo-Pref. 651-0097 JAPAN

Division :R & D DEPT.

Phone :+81-790-49-2366

FAX :+81-790-49-1588

Product code(MSDS NO) :EN500132-2

### 2. Hazards Identification

GHS classification and label elements of the product

GHS classification

HEALTH HAZARDS

Acute toxicity Dust/Mists inhalation : Category 2

Skin corrosion/irritation : Category 2

Eye damage /eye irritation : Category 2

Respiratory sensitization : Category 1

Skin sensitization : Category 1

Carcinogenicity : Category 2

Specific target organ toxicity - single exposure; Respiratory tract irritation  
Category 3

Specific target organ toxicity-repeated exposure : Category 1



Signal word :Danger

HAZARD STATEMENT

Fatal if inhaled dust/mist

Causes skin irritation.

Causes eye irritation

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

Suspected of causing cancer

May cause respiratory irritation

Causes damage to respiratory apparatus/system through prolonged or repeated exposure.

PRECAUTIONARY STATEMENT

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves.

Wear eye protection/face protection.

Use personal protective equipment as required.

Wear respiratory protection.(as specified by the manufacturer/supplier or the competent authority.)

#### Response

Immediately call a POISON CENTRE or doctor/physician.

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash before reuse.

IF ON SKIN: Wash with plenty of soap and water.

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

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

IF exposed or concerned: Get medical advice/attention.

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

If eye irritation persists: Get medical advice/attention.

If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

#### Storage

Store locked up.

Store in well-ventilated place. Keep container tightly closed.

#### Disposal

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

Not applicable to Japan class name

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### 3. Composition/Information on Ingredients

Substance/Preparation :Preparation

Ingredient name	content(%)	CAS No.	PRTR law No, Japan
Isocyanate-terminated prepolymer	35 - 40		
Methylene diphenyl diisocyanate	63.3	101-68-8	1-448
Carbon black	0.1 - 1	1333-86-4	
Additive	0.1 - 1		

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### 4. First-Aid Measures

#### IF INHALED :

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

If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

#### Skin contact

Never use solvent or thinner.

Wash with plenty of soap and water.

If you observe unusual symptom, have irritation/pain and/or feel unwell, seek medical advice.

#### 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.

Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor/physician.

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### 5. Fire-Fighting Measures

Suitable extinguishing media

In case of fire, use water mist, foam, dry powder or CO2.

Specific fire-fighting measures

- Use appointed fire extinguisher.
- Remove flammable matters quickly from nearby.
- Apply water from a safe distance to cool and protect surrounding area.
- Special protective equipment and precautions for fire-fighters
  - Fire extinguishing work has to be done from windward.
  - Wear proper protective equipment.

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#### 6. Accidental Release Measures

- Personnel precautions, protective equipment and emergency procedures
  - Ventilate area after material pick up is complete.
  - Wear proper protective equipment.
  - Keep unauthorized personnel away.
- Environmental precautions
  - Prevent spills from entering sewers, watercourses or low areas.
- Methods and materials for containment and cleaning up
  - Place in a covered container.
  - Use non-sparking tools to collect absorbed material.
- Preventive measures for secondary accident
  - Prepare extinguishers before catching fire.

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#### 7. Handling and Storage

- Precautions for safe handling
  - Preventive measures
    - (Exposure Control for handling personnel)
      - Use personal protective equipment as required.
    - (Protective measures against fire & explosion)
      - Take precautionary measures against static discharge.
- Safety Measures/Incompatibility
  - Do not handle until all safety precautions have been read and understood.
  - Handle in good ventilation.
- Conditions for safe storage, including any incompatibilities
  - Recommendation for storage
    - Keep container tightly closed.
    - Protect from sunlight. Store in a well-ventilated place.

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#### 8. Exposure Control/Personal Protection

- Control parameters e.g. occupational exposure limit values or biological limit values
  - Adopted value
    - (Methylene diphenyl diisocyanate)J5OH(1993) 0.05mg/m<sup>3</sup>
    - (Carbon black)ACGIH (1985) TWA: 3.5mg/m<sup>3</sup>
    - (Methylene diphenyl diisocyanate)ACGIH (1985) TWA: 0.005ppm (Resp sens)
  - Appropriate engineering controls
    - Do not use in areas without adequate ventilation.
    - Exhaust/ventilator should be available.
  - Individual protection measures, such as personal protective equipment
    - Respiratory protection
      - Wear respiratory protection.
    - Hand protection
      - Wear protective gloves.
    - Eye protection
      - Wear eye/face protection.
    - Skin and body protection
      - Wear protective gloves/clothing
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## 9. Physical and Chemical Properties

### Physical properties

Appearance :liquid

Color :black

Flash point :No data

Specific gravity :ca 1.20

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## 10. Stability and Reactivity

### Chemical stability

Stable under normal storage/handling conditions.

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## 11. Toxicological Information

Symptoms related to the physical, chemical and toxicological characteristics

### Acute toxicity

#### Oral toxicity component(s) data

(Methylene diphenyl diisocyanate)rat LD50 9200 mg/kg

#### Inhalation toxicity component(s) data

(Methylene diphenyl diisocyanate)rat LC50 178 mg/m3

### Irritant properties

#### Serious eye damage /eye irritation

##### Eye damage/irritation component(s) data

(Methylene diphenyl diisocyanate)rabbit 100 µg ; MILD

### Carcinogenic effects

(Carbon black)IARC-Gr.2B ; Possibly carcinogenic to humans.

(Methylene diphenyl diisocyanate)IARC-Gr.3 ; Not Classifiable as a Human Carcinogen.

(Carbon black)ACGIH-A4(1985) : Not Classifiable as a Human Carcinogen

(Carbon black)JCIH-2B; Insufficient Evidence of Carcinogenicity for Humans

(Methylene diphenyl diisocyanate)EPA "Cannot Be Determined" to be carcinogenic(1996)

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## 12. Ecological Information

### Ecotoxicity

#### Aquatic toxicity(component(s) data)

(Methylene diphenyl diisocyanate)Algae EC50 = 1.5 mg/L/72hr

(Carbon black)Crustacea(Daphnia magna) EC50 > 5600mg/L/24hr (IUCLID, 2000)

#### Water solubility

(Methylene diphenyl diisocyanate)reaction (ICSC, 1999)

(Carbon black)none (ICSC, 1995)

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## 13. Disposal Considerations

Description of waste residues and information on their safe handling and methods of disposal

Avoid release to the environment (- if this is not the intended use).

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

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## 14. Transport Information

UN No, UN CLASS

UN No :No data

Special precautions in connection with transport or conveyance

Follow instruction in Handling & Storage.

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## 15. Regulatory Information

Industrial Safety and Health law, Japan

Chemical name et al should be informed :Carbon black;Methylene diphenyl diisocyanate  
Labor standard law, Japan; Toxic :Methylene diphenyl diisocyanate  
Labor safety and hygiene control law, Japan; Mutagenic existing chemicals :Methylene  
diphenyl diisocyanate

PRTR law, Japan

Listed chemicals Gr.1 :Methylene diphenyl diisocyanate

Fire protection law, Japan

Petroleums Gr.4, ( Class III )

Air cargo control law, Japan

Dangerous goods forbidden from transport

Carbon black

Chemical Substances Control Law, Japan

Supervised chemicals, Gr. 2 :Methylene diphenyl diisocyanate

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## 16. Other Information/References

### Reference Book

Recommendations on the TRANSPORT OF DANGEROUS GOODS 15th edit. UN

2008 EMERGENCY RESPONSE GUIDEBOOK(US DOT)

2008 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/monoeval/grlist.html>

JIS Z 7250 2005

Supplier's SDS

ezCric(Retrieval System/Japan Chemical Database Ltd.)

### Other information

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 test