Ministry of Employment and Labor	Material Safety Data Sheet	Industrial Accident Prevention Korea Occupational Safety and Health Agency (KOSHA)

1. PRODUCT AND COMPANY IDENTIFICATION

A. Product Name: Sugar

B. Recommended Use and Restrictions on Use

Recommended Use	For food manufacturing and cooking
Restrictions on Use	Not available

C. Supplier Information (For imports, provide local supplier information for emergency contact)

Company Name	GloryGlobal Co., Ltd.
Address	Room 1004, Seoul-Technopark, inside Seoul Tech, 232, Gongneung-ro, Nowon-gu, Seoul, Korea 01811
Emergency Contact Number	02-6223-0862

2. Hazards Identification

A. Classification of the substance or mixture

No data available

B. GHS label elements, including precautionary statements

Pictogram	No data available
Signal word	No data available
Hazard statements	No data available
Precautionary statements	No data available

C. Other hazards which do not result in classification

NFPA: Health 0 / Flammability 1 / Reactivity 0

3. Composition/Information on Ingredients

Chemical Name	CAS No.	EC No.	Content(%)
Sugar	57-50-1	-	99.8 - 100

4. First Aid Measures

A. If inhaled

Move the affected person to fresh air.
If breathing is difficult, administer oxygen.
If not breathing, give artificial respiration.
Seek immediate medical attention.

B. If on skin

Immediately wash skin with running water for at least 20 minutes after contact.
Remove and isolate contaminated clothing and shoes.
Wash clothing and shoes thoroughly before reuse.
Seek immediate medical attention.

C. If in eyes

Immediately flush eyes with running water for at least 20 minutes after contact.
Get medical advice/attention if irritation or symptoms occur.

D. If swallowed

If only a small amount is ingested, treatment is generally not required.
Do not give anything by mouth to an unconscious person.
Seek immediate medical attention.

E. Most important symptoms/effects, acute and delayed

Short-term exposure may cause irritation to the respiratory tract, skin, and eyes.
Prolonged inhalation may cause irritation, hypothermia, fever, and difficulty breathing.

F. Notes to physician

Do not administer epinephrine or related compounds.
Ensure that medical personnel are aware of the material involved and take appropriate protective measures.

5. Fire-Fighting Measures

A. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: For small fires: dry sand, dry chemical, alcohol-resistant foam, water spray, general-purpose foam, CO_2. For large fires: use general extinguishing agents or fine water spray. Other suitable media include particulate dry chemical agents, CO_2, water, and general-purpose foam.

Unsuitable extinguishing media: No data available.

B. Specific hazards arising from the chemical

Thermal decomposition products: No data available.

Fire and explosion hazards: Slight fire hazard. Dust/air mixtures may ignite or explode.

C. Special protective actions for fire-fighters

Wear appropriate chemical-resistant and heat-resistant protective clothing and gloves.

Wear safety goggles and respiratory protection to protect eyes and respiratory tract.

6. Accidental Release Measures

A. Personal precautions, protective equipment, and emergency procedures

Transfer the spilled material to an appropriate container for disposal.
Store away from drinking water sources and sewage systems.
Remove residues using a high-efficiency vacuum cleaner to prevent dust generation.

B. Environmental precautions

Air: No data available.

Soil: No data available.

Water: Store in locations away from drinking water sources and sewage systems.

C. Methods and materials for containment and cleaning up

Small spill: Remove residues using a high-efficiency vacuum cleaner.

Large spill: Suppress dust generation and remove residues using a high-efficiency vacuum cleaner.

7. Handling and Storage

A. Precautions for safe handling

Use methods that minimize the generation of dust.

B. Conditions for safe storage (including any incompatibilities)

Minimize dust generation and accumulation.

Store in a cool, dry place.

8. Exposure Controls/Personal Protection

A. Occupational exposure limits / Biological exposure limits

Domestic regulation (Korea): Industrial Safety and Health Act – TWA 10 mg/m³
ACGIH: TWA 10 mg/m³
Biological exposure limit: No data available

B. Appropriate engineering controls

Install local exhaust ventilation and maintain suitable airflow for control.

C. Personal protective equipment

Respiratory protection	Respiratory protection is required when use is frequent or exposure is significant.
Eye protection	Protect eyes whenever possible.
Skin protection	Wear appropriate protective gloves.
Body protection	Wear appropriate protective clothing.

9. Physical and Chemical Properties

A. Appearance

Physical state	Crystalline or crystalline powder
Color	White

B. Odor	Odorless
C. Odor threshold	Not available
D. pH	Neutral in solution
E. Melting point/freezing point (℃)	169~170 ℃
F. Initial boiling point and boiling range	Not available
G. Flash point	Not available
H. Evaporation rate	Not available
I. Flammability (solid, gas)	Solid
J. Upper/lower flammability or explosive limits	Not available
K. Vapor pressure	Not available
L. Solubility	Soluble, 2,000g/L (at 25℃)
M. Vapor density	Not available
N. Relative density	1.587 (water = 1, at 25 ℃)
O. n-Octanol/water partition coefficient (log Kow)	-3.70
P. Auto-ignition temperature	Not available
Q. Decomposition temperature (℃)	160 ~ 186℃
R. Viscosity	Not available
S. Molecular weight	342.30

10. Stability and Reactivity

A. Chemical stability and possibility of hazardous reactions

Chemically stable under normal temperature and pressure.

B. Conditions to avoid

Avoid heat, flames, sparks, and other sources of ignition.

C. Incompatible materials

Avoid contact with flammable materials and incompatible substances (oxidizing agents, acids).

D. Hazardous decomposition products

Not available

11. Toxicological Information

A. Information on likely routes of exposure

Not available.

B. Health Hazard Information

Acute toxicity	LD50(oral, rat)	29700 ㎎/kg
	LD50(dermal, rabbit)	Not available.
	LD50(inhalation, rat)	Not available.
Skin corrosion/irritation		Not available.
Serious eye damage/eye irritation		Not available.
Respiratory sensitization		Not available.
Skin sensitization		Not available.
Germ cell mutagenicity		Not available.
Carcinogenicity		A4 – Not classifiable as a human carcinogen due to inadequate evidence (ACGIH)
Reproductive toxicity		Not available.
STOT – single exposure		Not available.
STOT – repeated exposure		Not available.
Aspiration hazard		Not available.

12. Ecological Information

A. Ecotoxicity

Fish : LC50199000000㎎/ℓ96hr (Source : ECOSAR)

Crustaceans : LC50138000000㎎/ℓ48hr (Source : ECOSAR)

Algae : LC5060200000㎎/ℓ96hr (Source : ECOSAR)

B. Persistence and degradability

Persistence : log Kow -3.70

Degradability : Not available.

C. Bioaccumulative potential

Biodegradability: Not available

Bioaccumulation: Not available

D. Mobility in soil: Not available

E. Other adverse effects: Not available

13. Disposal Considerations

A. Disposal methods

Dispose of in accordance with applicable regulations.

B. Precautions for disposal

When specified under the Waste Management Act, observe the precautions stated in the regulations.

14. Transport Information

A. UN number / proper shipping name

No UN classification for hazardous material.

B. Proper shipping name

3-Benzylidenephthalide

C. Transport hazard class(es)

Not applicable

D. Packing group

Not available

E. Marine pollutant

Not available

F. Special precautions for user

Emergency procedures in case of fire: Not applicable

Emergency procedures in case of spillage: Not applicable

15. Regulatory Information

A. Regulations under the Occupational Safety and Health Act (Korea)	Substance with established exposure limit
B. Regulations under the Chemical Control Act (Korea)	Not applicable
C. Number of amendments and last revision date	Not applicable
D. Regulations under the Waste Management Act (Korea)	Not applicable
E. Other domestic and foreign regulations	
Domestic regulations	Not applicable
Foreign regulations	
U.S. OSHA	Not applicable
U.S. CERCLA	Not applicable
U.S. EPCRA Section 302	Not applicable
U.S. EPCRA Section 304	Not applicable
U.S. EPCRA Section 313	Not applicable
U.S. Rotterdam Convention substances	Not applicable
U.S. Stockholm Convention substances	Not applicable

U.S. Montreal Protocol substances	Not applicable
EU classification (final classification result)	Not applicable
EU classification (hazard statements)	Not applicable
EU classification (precautionary statements)	Not applicable

16. Other Information

A. Sources of data

HSDB(Appearance)

GESTIS(Color)

HSDB(Odor)

HSDB(pH)

HSDB(Melting point/Freezing point)

CAMEO(Initial boiling point and boiling range)

CAMEO(Vapor pressure)

HSDB(Solubility)

HSDB(Vapor density)

HSDB(Relative density)

HSDB(n-Octanol/water partition coefficient (Kow))

HSDB(Molecular weight)

HSDB(Oral toxicity)

ECOSAR(Fish)

ECOSAR(Crustaceans)

ECOSAR(Algae)

HSDB(Persistence)

B. Date of first issue

2015-06-29

C. Number of revisions and date of last revision

Number of revisions :

Date of last revision : 2020-03-04

D. Other information

Not available