SAFETY DATA SHEET

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

A. GHS product identifier : SKYPET® BB, BB8055, BL, BL8050, BR, BR8040, BR-V

B. Recommended use of the chemical and restrictions on use

Recommended use : Plastics

Restrictions on use : Use for recommended use only.

C. Supplier

Company name : SK Chemicals Co., Ltd.

Address : 310 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea / 13494

Emergency phone number : +82-2-2008-2008

Fax : +82-2-2008-2009

2. Hazards identification

A. GHS classification of the substance/mixture

Not classified according to OSHA 29 CFR 1910.1200

B. GHS label elements, including precautionary statements

Pictogram and symbol : Not applicable

Signal word : Not applicable

Hazard statements : Not applicable

Precautionary statements

Precaution : Not applicable

Treatment : Not applicable

Storage : Not applicable

Disposal : Not applicable

C. Other hazard information not included in hazard classification (NFPA)

Health : 0

Flammability : Not available

Reactivity : Not available

3. Composition/information on ingredients

Chemical Name	Common Name (Synonyms)	CAS No.	Content (%)
Polyethylene terephthalate	PET	25038-59-9	100

4. First aid measures

A. Eye contact

- In case of contact with substance, immediately flush eyes with running water at least 20 minutes.

B. Skin contact

- In case of contact with substance, immediately flush skin with running water at least 20 minutes.
- Remove and isolate contaminated clothing and shoes.
- Wash contaminated clothing and shoes before reuse.
- Get immediate medical advice/attention.

C. Inhalation

- Specific medical treatment is urgent.
- Move victim to fresh air.
- Administer oxygen if breathing is difficult.

D. Ingestion

- Do not let him/her eat anything, if unconscious.
- Get immediate medical advice/attention.

E. Indication of immediate medical attention and notes for physician

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

F. Most important symptoms and effects, both acute and delayed

Not available

5. Fire fighting measures

A. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media: Dry sand, dry chemical, alcohol-resistant foam, water spray, regular foam, CO_2
- Unsuitable extinguishing media: High pressure water streams

B. Specific hazards arising from the chemical

- May be ignited by heat, sparks or flames.
- Containers may explode when heated.
- Some of these materials may burn, but none ignite readily.
- If inhaled, may be harmful.
- Fire will produce irritating and/or toxic gases.

C. Special protective equipment and precautions for fire-fighters

- Dike fire-control water for later disposal; do not scatter the material.
- Move containers from fire area if you can do it without risk.
- Fire involving Tanks; Cool containers with flooding quantities of water until well after fire is out.
- Fire involving Tanks; Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Fire involving Tanks; Always stay away from tanks engulfed in fire.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

- Eliminate all ignition sources.
- Stop leak if you can do it without risk.
- Please note that materials and conditions to avoid.
- Ventilate the area.
- Do not touch or walk through spilled material.
- Prevent dust cloud.

B. Environmental precautions and protective procedures

- Prevent entry into waterways, sewers, basements or confined areas.

C. The methods of purification and removal

- Small Spill; Flush area with flooding quantities of water. And take up with sand or other non-combustible absorbent material and place into containers for later disposal.
- Large Spill; Dike far ahead of liquid spill for later disposal.
- With clean shovel place material into clean, dry container and cover loosely; move

containers from spill area.

7. Handling and storage

A. Precautions for safe handling

- Please note that materials and conditions to avoid.
- Wash thoroughly after handling.
- Please work with reference to engineering controls and personal protective equipment.
- Be careful to high temperature.

B. Conditions for safe storage

- Store in a closed container.
- Store in cool and dry place.

8. Exposure controls/personal protection

A. Occupational Exposure limits

ACGIH regulation : Not available
Biological exposure index : Not available
OSHA regulation : Not available
NIOSH regulation : Not available
EU regulation : Not available
Other : Not available

B. Appropriate engineering controls

- Provide local exhaust ventilation system or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

C. Personal protective equipment

Respiratory protection :

- Wear NIOSH or European Standard EN 149 approved full or half face piece (with goggles) respiratory protective equipment when necessary.
- In case exposed to particulate material, the respiratory protective equipments as follow are recommended.

;facepiece filtering respirator or air-purifying respirator, high-efficiency particulate air(HEPA) filter media or respirator equipped with powered fan, filter media of use(dust, mist, fume)

- In lack of oxygen(< 19.5%), wear the supplied-air respirator or self-contained oxygen breathing apparatus.

Eye protection :

- Wear facepiece with goggles to protect.
- An eye wash unit and safety shower station should be available nearby work place.
- Wear breathable safety goggles to protect from particulate material causing eye irritation or other disorder.
- An eye wash unit and safety shower station should be available nearby work place.

Hand protection :

- Wear chemical resistant gloves.
- Wear appropriate protective gloves by considering physical and chemical properties of chemicals.

Body protection :

- Wear appropriate protective chemical resistant clothing.
- Wear appropriate protective clothing by considering physical and chemical properties of chemicals.

9. Physical and chemical properties

A. Appearance

Description : Solid

Color : Not available

B. Odor : Not available

C. Odor threshold : Not available

D. pH : Not available

E. Melting point/freezing point : Not available

F. Initial boiling point and boiling range : Not available

G. Flash point : Not available

H. Evaporation rate : Not available

I. Flammability (solid, gas) : Not available

J. Upper/lower flammability or explosive limits : Not available

K. Vapor pressure : Not available

L. Solubility (ies) : Not available

M. Vapor density : Not available

N. Specific gravity : Not available

O. Partition coefficient: n-octanol/water : Not available

P. Auto ignition temperature : Not available

Q. Decomposition temperature : Not available

R. Viscosity : Not available

S. Molecular weight : Not available

10. Stability and reactivity

A. Chemical stability and Possibility of hazardous reactions

- Fire may produce irritating and/or toxic gases.
- Inhalation of material may be harmful.

B. Conditions to avoid

- Ignition sources (heat, sparks or flames)

C. Incompatible materials

- Combustibles

D. Hazardous decomposition products

- Irritating and/or toxic gases

11. Toxicological information

A. Information on the likely routes of exposure : Not available

B. Information of Health Hazardous

Acute toxicity

Oral : Not available

Dermal : Not available

Inhalation : Not available

Skin corrosion/ irritation : Not classified

- Molten material will produce thermal burns.

Serious eye damage/ irritation : Not classified

- Molten material will produce thermal burns.

Respiratory sensitization : Not available

Skin sensitization : Not available

Carcinogenicity : Not available

Mutagenicity : Not classified

- Polyethylene terephthalate (PET) was tested as a source of mutagen contamination from bottles used for beverage packaging. PET bottles were filled with mineral water and stored in daylight and in the dark for different periods of time. The water samples were concentrated and the concentrates (Non–volatile compounds) tested for mutagenicity with the Ames test (static tests). Total organic carbon (TOC) leaching was determined concurrently. Leaching of mutagens was also studied using dynamic tests; shaking distilled water in PET bottles. New methods were also used to test the leaching potential of both volatile and non-volatile compounds: directly testing the mutagenicity in unconcentrated water stored in PET bottles and growing Salmonella strains directly in the plastic bottles. The results were positive only for the static test, which identified leaching of mutagens after 1 month of storage in PET bottles. This activity was higher after storage in daylight.

Reproductive toxicity : Not available

Specific target organ toxicity (single exposure) : Not classified

- In a 1-month study, rats received wine extracts obtained after several months contact with PET. The treatment produced no harmful effect on animals.

Specific target organ toxicity (repeat exposure) : Not classified

- Rats were given 5.0 to 400 mg technical grade PET/kg bw and 5.0 to 100 mg pure PET/kg bw over a 3-month period. There were no changes in their behavior, BW gain, biochemical indices of blood serum, urine, or hematology analyses, or in relative weights of internal organs.

Aspiration Hazard : Not available

12. Ecological information

A. Ecological toxicity

- Acute toxicity : Not available

Fish : Not available

crustacean : Not available

Algae : Not available

- Chronic toxicity : Not available

Fish : Not available

crustacean : Not available

Algae : Not available

B. Persistence and degradability

Persistence : Not available

Degradability : Not available

- PET is subject to various types of degradations during processing. The main degradations that can occur are hydrolytic, thermal and, probably most important, thermal oxidation. When PET degrades, several things happen: discoloration, chain scission resulting in reduced molecular weight, formation of acetaldehyde and cross-links(“gel” or “flash-eye” formation). Discoloration is due to the formation of various chromophoric systems following prolonged thermal treatment at elevated temperatures. This become a problem when the optical requirements of the polymer are very high, such as in packaging applications. The thermal and thermoxidative degradation results in poor processability characteristics and performance of the material.

C. Bioaccumulative potential

Bioaccumulation : Not available

Biodegradation : Not biodegradable.

D. Mobility in soil : Not available

E. Other hazardous effect : Not available

- Commentary published in Environmental Health Perspectives in April 2010 suggested that PET might yield endocrine disruptors under conditions of common use and recommended research on this topic. Proposed mechanisms include leaching of phthalates as well as leaching of antimony. Other authors (Fraz and Welle) published evidence based on mathematical modeling, indicating that it is quite unlikely that PET yields endocrine disruptors in mineral water.

F. Hazardous to the ozone layer : Not classified

13. Disposal considerations

A. Disposal method :

- Waste must be disposed of in accordance with federal, state and local environmental control regulations.

B. Disposal precaution :

- Consider the required attentions in accordance with waste treatment management regulation.

14. Transport information

A. UN Number : Not applicable

B. UN Proper shipping name : Not applicable

C. Transport Hazard class : Not applicable

D. Packing group : Not applicable

E. Environmental hazards : Not applicable

F. Special precautions

in case of fire : Not applicable

in case of leakage : Not applicable

15. Regulatory information

① U.S.A Regulatory information

Section 8(b) Inventory (TSCA)

- Present [XU] (ACTIVE)

U.S.A management information (OSHA Regulation) : Not regulated

U.S.A management information (CERCLA Regulation) : Not regulated

U.S.A management information (EPCRA 302 Regulation) : Not regulated

U.S.A management information (EPCRA 304 Regulation) : Not regulated

U.S.A management information (EPCRA 313 Regulation) : Not regulated

② Foreign Regulatory Information

External information

Substance of Rotterdam Convention : Not regulated

Substance of Stockholm Convention : Not regulated

Substance of Montreal Protocol : Not regulated

16. Other information

A. Information source and references

- American Conference of Governmental Industrial Hygienists TLVs and BEIs.
- NIOSH Pocket Guide; http://www.cdc.gov/niosh/npg/npgdcas.html

- National Toxicology Program; http://ntp.niehs.nih.gov/results/dbsearch/
- IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; http://monographs.iarc.fr
- EU CLP; https://echa.europa.eu/information-on-chemicals/cl-inventory-database
- TOMES-LOLI®; http://www.rightanswerknowledge.com/loginRA.asp

B. Issuing date : 05/March/2020

C. Revision number and date

revision number : 0

date of the latest revision : 05/March/2020

D. Others :

•Revised Safety Data Sheet based on the amendments made on the Ministry of Employment and Labor Public Notice on Standard for Classification Labeling of Chemical Substance and Material Safety Data Sheet.

•This SDS is authored in pursuant to U.S. OSHA 29 CFR 1910.1200.

•The content is based on the latest information and knowledge that we currently possess.

•This SDS was authored to aid buyer, processor or any other third person who handles the chemical of subject in the SDS; additionally, it does not warrant suitability of the chemical for special purposes or the commercial use of statements that approves the use of it in combination with other chemicals as well as technical or legal liabilities.

•The content of the SDS may vary depending on the country or the region and may not coincide with the actual regulations. Therefore, the buyer or the processor of the chemical is responsible for observing responsible government's or the region's regulations.