

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	1/10

1. Product and Company Identification

1.1 Product Name: SK leaveo LeaveZero

1.2 Recommended use of the chemical and restriction on use

Relevant identified uses: Polymer technical use

1.3. Details of supplier of the safety data sheet

SK leaveo Co., ltd

102, Jeongja-ro Jangan-gu, Suwon-si, Gyeonggi-do 16338, Republic of Korea

Emergency phone number: 82-10-4740-8468

2. Hazard identification

2.1 Classification of the substance or mixture

No need for classification according to GHS criteria for this product.

2.2 Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

2.3 Other hazards

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition/Information on Ingredients

Ingredient	CAS No.	Contents (%)
Poly butyleneadipate co-terephthalate	55231-08-8	100

4. First aid measures

4.1 Description of first aid measures

Remove contaminated clothing.

If inhaled:

After inhalation of decomposition products, remove the affected person to a source of fresh air and keep calm. Provide medical aid. If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

On skin contact:

Areas affected by molten material should be quickly placed under cold running

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	2/10

water. Burns caused by molten material require hospital treatment.

On contact with eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

On ingestion:

Rinse mouth and then drink plenty of water. If difficulties occur: Seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No significant reaction of the human body to the product known.

Hazards: No hazard is expected under intended use and appropriate handling.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

5.2 Special hazards arising from the substance or mixture

carbon monoxide, Carbon dioxide, tetrahydrofuran, fumes/smoke, carbon black, harmful vapors Formation of further decomposition and oxidation products depends upon the fire conditions. Under special fire conditions traces of other toxic substances are possible.

5.3. Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions.

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	3/10

In case of combustion evolution of toxic gases/vapors possible. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

High risk of slipping due to leakage/spillage of product.

6.1 Personal precautions, protective equipment and emergency procedures
Avoid inhalation. Sources of ignition should be kept well clear.

6.2 Environmental precautions
No special precautions necessary.

6.3. Methods and material for containment and cleaning up
Sweep/shovel up. Avoid raising dust. Ensure adequate ventilation. Dispose of absorbed material in accordance with regulations.

6.4. Reference to other sections
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and storage

7.1 Precautions for safe handling
Processing machines must be fitted with local exhaust ventilation. When working on exhaust systems special safety precautions must be taken, because dangerous substances can accumulate in the residue of the exhaust system. Avoid the formation and deposition of dust. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Avoid dust formation. Dust can form an explosive mixture with air. Provide exhaust ventilation. When the product is ground (chopped), dust explosion regulations should be noted.

7.2 Conditions for safe storage, including any incompatibilities
Further information on storage conditions: Protect against moisture. Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame. The

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	4/10

product must be stored according to the requirements of Regulation (EC) No 2023/2006. Contamination with other substances must be avoided. Storage together with other substances, especially hazardous substances, must be avoided.

7.3 Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure controls & personal protection

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1 or FFP1)

Hand protection:

Use additional heat protection gloves when handling hot molten masses (EN 407), e.g. of textile or leather.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Avoid contact of molten material with skin. Avoid inhalation of dusts/mists/vapors. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of dusts. Hands and/or face should be washed before breaks and at the end of the shift. Consult the company Industrial Hygienist for recommendations on exposure testing and personal protective equipment.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form: granules

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	5/10

Color: various, depending on the colorant

Odor: faint specific odor, product specific

Odor threshold: not determined.

pH value: not applicable

Melting range: 100 – 130 ° C

Boiling range: The substance/product decomposes, therefore not determined.

Sublimation point: No applicable information available.

Flash point: > 280 ° C

Evaporation rate: not applicable, The product is a non- volatile solid.

Flammability: not highly flammable

Flammability of Aerosol Products: not applicable, the product does not form flammable aerosols

Lower explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Upper explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Ignition temperature: > 400 ° C

Vapor pressure: not applicable

Density: approx. 0.8 – 1.4 g/cm³ (20 ° C, 1,013 hPa)

Relative density: approx. 0.8 – 1.4 (20 ° C, 1,013 hPa)

Relative vapour density (air): not applicable, The product is a non- volatile

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	6/10

solid.

Solubility in water: insoluble (20 ° C, 1,013 hPa)

Partitioning coefficient n-octanol/water (log Kow): not applicable

Self ignition: not self-igniting

Thermal decomposition: > 280 ° C

To avoid thermal decomposition, do not overheat.

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

9.2. Other information

Self heating ability: It is not a substance capable of spontaneous heating.

Bulk density: approx. 500 - 1,000 kg/m³ (20 ° C, 1,013 hPa)

10. Physical and chemical properties

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

The product is stable if stored and handled as prescribed/indicated.

10.4. Conditions to avoid

Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame.

10.5. Incompatible materials

Substances to avoid: strong oxidizing agents

10.6. Hazardous decomposition products

Possible decomposition products:

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	7/10

At prolonged and/or strong thermal stressing above the decomposition temperature Dangerous decomposition products can be formed.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion.

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes. Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

modified Buehler test guinea pig: Non-sensitizing. (OECD Guideline 406)

modified Buehler test guinea pig: Non-sensitizing. (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria.

Carcinogenicity

Assessment of carcinogenicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	8/10

uses.

Reproductive toxicity

Assessment of reproduction toxicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Other relevant toxicity information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

12. Ecological information

12.1. Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested.

12.2. Persistence and degradability

The product is biodegradable.

Bioaccumulation potential:

Because of the product's consistency and low water solubility, bioavailability is improbable.

12.3. Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: Study scientifically not justified.

12.4. Results of PBT and vPvB assessment

The product does not fulfill the criteria for PBT

(Persistent/bioaccumulative/toxic) and vPvB (very persistent/very

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	9/10

bioaccumulative).

12.5. Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

12.6. Additional information

Add. remarks environm. fate & pathway:

At the present state of knowledge, no negative ecological effects are expected.

13. Disposal considerations

13.1. Waste treatment methods

Check for possible recycling.

Observe national and local legal requirements.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

Completely emptied packagings can be given for recycling.

14. Transport information

UN NUMBER: Not Dangerous Goods

UN PROPER SHIPPING NAME: Not Dangerous Goods

TRANSPORT HAZARD CLASS(ES): Not Dangerous goods

PACKAGING GROUP: Not Dangerous Goods

ENVIRONMENTAL HAZARDS: N/A

SPECIAL PRECAUTIONS FOR USER: N/A

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2. Chemical Safety Assessment

A safety data sheet for this product is legally not required and is provided by us just as a courtesy to our customers.

Product is not classified as hazardous.

Material Safety Data Sheet (MSDS)

SK leaveo LeaveZero	Page
	10/10

Chemical Safety Assessment not required

16. Other information

The information contained herein is based on our knowledge and data we have been able to get up to the present. However, we make guarantee neither of accuracy of this information nor safety of this material. And also, this information may be revised when we get new knowledge.

As all chemicals may present unknown health hazards, they should be handled with great caution. Please determine safe conditions and methods of use of this material on the responsibility of user's own.