

SAFETY DATA SHEET

SDS-EUEN-2016

Date Updated : 13. Jan. 2016

Version : 1.3/EN

Regulation : In accordance with Regulation (EU) 453/2010 (REACH), Annex II

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Name of substance : ECOZEN YH051

Synonyms : Copolyester

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : Plastics

Uses advised against : Not available

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier : SK Chemicals Co., Ltd

Street address/P.O. Box : 310 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea / 13494

Telephone number (if possible, indicate telefax) : +82-2-2008-2253(+82-2-2008-2259)

e-mail address of competent person responsible for the SDS : nse@sk.com

National contact : Not available

1.4 Emergency Telephone

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

Opening hours : Not available

Other comments (e.g. language(s) of the phone service) : Not available

SECTION 2 : HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

is not classified according to Regulation (EC) No 1272/2008 [CLP] and Directive 67/548/EEC.

2.2 Label elements

Hazard pictograms : Not applicable

Signal word : Not applicable

Hazard statement : Not applicable

Additional precautionary statements : Not applicable

2.3 Other hazards

According to Annex XIII, the substance does not meet PBT or vPvB criteria.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

| Component | Additional identification | Conc. / % | Classification |
|-------------|---------------------------|-----------|----------------|
| copolyester | proprietary | ≥99 | See section.2 |
| Additives | mixture | ≤1 | |

SECTION 4 : FIRST-AID MEASURES

4.1 Description of first aid measures

After eye contact :

- Get medical attention if eye symptoms occurred.

- In case of contact with molten substance, immediately flush eyes with water for at least 15 minutes. Get medical attention immediately.

After skin contact :

- Remove contaminated clothing and shoes.
- Get medical attention if skin symptoms occurred.
- If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.
- Wash contaminated clothing and shoes before reuse.

After inhalation :

- Specific medical treatment is urgent.
- Move victim to fresh air.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.

After ingestion :

- Get medical attention if swallowed amount of substance.

4.2 Most important symptoms and effects, both acute and delayed

Acute effects

Not classified

Delayed effects

Not classified

4.3 Indication of immediate medical attention and special treatment needed

- Call emergency medical service. Get medical advice/attention if you needed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- If burned by contact with molten material, cool quickly as possible with water, and then go to see a physician for treatment of burn.

SECTION 5 : FIRE-FIGHTING MEASURES

5.1 Extinguishing media

- Suitable extinguishing media: CO₂, water, sand
- Unsuitable extinguishing media: High pressure water streams

5.2 Special hazards arising from the substance or mixture

- Thermal decomposition products: Not available
- Hazardous combustion products: CO₂, CO
- Unusual fire and explosion hazards: No explosion hazards

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural fire fighters' protective clothing will only provide limited protection.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- Stop leak if you can do it without risk.
- Isolate exposed area.
- Keep unauthorized personnel away.
- Use certificated protective equipment.
- Ventilate the leaked area.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

- Do not touch or walk through spilled material.

6.4 Reference to other sections

- See also sections 8 and 13 of the Safety Data Sheet.

SECTION 7 : HANDLING AND STORAGE

7.1 Precautions for safe handling

- Avoid contact with molten material.
- Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures.

7.2 Conditions for safe storage, including any incompatibilities

- Keep container closed.
- Store container in a well dry/cool place.
- Keep away from waterways and sewers.
- Keep away from any source of ignition.

7.3 Specific end use(s)

Not available

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limits

- Korea regulation** : Not available
- ACGIH regulation** : Not available
- Biological exposure index** : Not available
- OSHA regulation** : Not available
- NIOSH regulation** : Not available
- EU regulation** : Not available

Occupational exposure controls :

8.2 Exposure controls

8.2.1 Appropriate engineering controls :

- Provide local exhaust ventilation system or other engineering controls to keep the airborne below their respective threshold limit value.
- Check legal suitability of exposure level.

8.2.2 Individual protection measures, such as 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.

Eye/face protection :

- An eye wash unit and safety shower station should be available nearby work place.
- Wear safety glasses to protect eyes from scattering toxic substance.

Skin protection

(i) Hand protection :

- When material is heated, wear gloves to protect against thermal burns.

(ii) Other :

- When material is heated, wear gloves to protect against thermal burns.

8.2.3 Environmental exposure controls

Not available

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Description : Solid

Color : Colorless

Odor : Slight odor

Odor threshold : Not available

pH : Not available

Melting point/freezing point : Not available

Initial boiling point and boiling range : Not available

Flash point : Not available

Evaporation rate : Not available

Flammability (solid, gas) : Not available

Upper/lower flammability or explosive limits : Not available

Vapor pressure : Negligible (20 °C)

Solubility (ies) : Negligible

Vapor density : Not available

Relative density : 1.25 g/ml (25 °C)
Specific gravity : > 1
Partition coefficient: n-octanol/water : Not available
Auto ignition temperature : 454 °C (ASTM E659)
Decomposition temperature : Not available
Viscosity : Not available
Explosive properties : Not available
Oxidizing properties : Not available
Molecular weight : Not available

9.2 Other information

Not available

SECTION 10 : STABILITY AND REACTIVITY

10.1 Reactivity

- Some of these materials may burn, but none ignite readily.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Containers may explode when heated.
- Fire may produce irritating and/or toxic gases.
- Some liquids produce vapors that may cause dizziness or suffocation.
- Inhalation of material may be harmful.

10.4 Conditions to avoid

- Avoid contact with incompatible materials.
- Avoid release to the environment.

10.5 Incompatible materials

- Combustibles

10.6 Hazardous decomposition products

- Irritating and/or toxic gases

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

(a) Acute toxicity;

Oral Not available

Dermal Not available

Inhalation Not available

(b) Skin Corrosion/ Irritation; Molten material will produce thermal burns

(c) Serious Eye Damage/ Irritation; Molten material will produce thermal burns

(d) Respiratory sensitization; Not available

(e) Skin Sensitization; Not available

(f) Carcinogenicity; KOREA-ISHL, IARC, NTP, OSHA, ACGIH, EU Regulation 1272/2008:
Not listed

(g) Mutagenicity; Not available

(h) Reproductive toxicity; Not available

(i) Specific target organ toxicity (single exposure); Not available

(j) Specific target organ toxicity (repeat exposure); Not available

(k) Aspiration Hazard; Not available

SECTION 12 : ECOLOGICAL INFORMATION

12.1 Toxicity

Acute toxicity Not available

| | |
|---|---|
| Chronic toxicity | Not available |
| 12.2 Persistence and Degradability | Persistence : Not available Degradability : Not available |
| 12.3 Bioaccumulative potential | Bioaccumulation : Not available Biodegradation : Not available |
| 12.4 Mobility in soil | Not available |
| 12.5 Results of PBT and vPvB assessment | Not available |
| 12.6 Other adverse effects | Not available |

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from residues

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

Container

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

SECTION 14 : TRANSPORT INFORMATION

14.1 UN Number : Not applicable

14.2 UN Proper shipping name : Not applicable

14.3 Transport Hazard class : Not applicable

14.4 Packing group : Not applicable

14.5 Environmental hazards : Not applicable

14.6 Special precautions for user

in case of fire : Not applicable

in case of leakage : Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not Available

SECTION 15 : REGULATORY INFORMATION

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

EU Regulatory Information

EU classification :

Annex I of Directive 67/548/EEC :

Classification : Not regulated

Risk phrases : Not regulated

Safety phrases : Not regulated

EU CLP 2008 :

Classification : Not regulated

Hazard statement codes : Not regulated

Precautionary statement codes : Not regulated

EU SVHC list : Not regulated

EU Authorisation List : Not regulated

EU Restriction list : Not regulated

Foreign Regulatory Information

External information :

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

Korea management information : Not regulated

Substance of Roterdame Protocol : Not regulated

Substance of Stockholme Protocol : Not regulated

Substance of Montreal Protocol : Not regulated

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16 : OTHER INFORMATION

Product safety data sheet for prepared in accordance with Regulation (EU) 453/2010 (REACH), Annex II

16.1 Indication of changes

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16.2 Abbreviations and acronyms

ACGIH = American Conference of Government Industrial Hygienists

CLP = Classification Labelling Packaging Regulation ; Regulation (EC) No 1272/2008

CAS No. = Chemical Abstracts Service number

DMEL = Derived Minimal Effect Levels

DNEL = Derived No Effect Level

EC Number = EINECS and ELINCS Number (see also EINECS and ELINCS)

EU = European Union

IARC = International Agency for Research on Cancer

ISHL = Industrial Safety & Health Law

NIOSH = National Institute for Occupational Safety & Health

NTP = National Toxicology Program

OSHA = European Agency for Safety and Health at work

PBT = Persistent, Bioaccumulative and Toxic substance

PNEC(s) = Predicted No Effect Concentration(s)

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 453/2010

STP = Sewage Treatment Plant

SVHC = Substances of Very High Concern

vPvB = Very Persistent and Very Bioaccumulative

UN = United Nations

MARPOL = International Convention for the Prevention of Pollution from Ships (IMO)

IBC = Intermediate Bulk Container

CERCLA = Comprehensive Environmental Response, Compensation & Liability Act (US)

EPCRA = Emergency Planning and Community Right-to-Know Act (US)

EINECS = European Inventory of Existing Commercial chemical Substances

ELINCS = European List of Notified Chemical Substances

16.3 Key literature reference and sources for data :

16.4 Classification and procedure used to derive the classification for mixtures according to Regulation(EC) 1272/2008(CLP):

Classification according to Regulation (EC) 1272/2008

Classification procedure

16.5 Relevant R-phrases and/or H-statements (number and full text) :

Not available

16.6 Training advice :

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

16.7 Further information :

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation, as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.