Hyosung Chemical Corporation

# Safety Data Sheet

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name : M33AS1A-BK0 (Polyketone)

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

Identified uses : Raw materials for plastic goods

1.3 Details of the supplier of the safety data sheet

Company : Hyosung Chemical Corporation

Address : 65, Cheoyong-ro 487beon-gil, Nam-gu, Ulsan, Republic of Korea (44784)

Telephone : +82 52 208 9920

Fax : +82 52 208 9909

1.4 Emergency telephone number

Emergency telephone number: +82 52 208 9920

## 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS / CLP]

Physical hazard : Not applicable

Health hazard : Not applicable

Environment hazard : Not applicable

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Symbol / Signal word / Hazard statements / Precautionary statements : Not applicable

Extra phrases: The synthetic polymer microparticles supplied are subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

2.3 Other hazards

NFPA Rating Health : 0 Flammability : 1 Reactivity : 0 Water reactivity : 0

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

| Ingredients | CAS No. | EINECS No. | Conc. % |
|---|---|---|---|
| 1-Propene, polymer with carbon monoxide and ethene | 88995-51-1 from *US NLM | No data available from **ECHA | > 97 % |
| Dimethyl siloxane, dimethyl- vinyl terminated | 68083-19-2 | | < 2 % |
| Additives | - | - | < 1 % |

* US NLM : U.S. National Library of Medicine, http://chem.sis.nlm.nih.gov/chemidplus/

** ECHA : European chemical agency, http://echa.europa.eu/

## 4. FIRST AID MEASURES

4.1 Description of first aid measures

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water.

**If inhaled**

If breathed in, move person into fresh air.

If not breathing, give artificial respiration.

**If swallowed**

Never give anything by mouth to an unconscious person.

**Potential health effect**

Ingestion : May be harmful if swallowed.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of immediate medical attention and special treatment needed

No data available

## 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Water spray, alcohol-resistant foam, dry chemical, carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

No data available

## 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition.

Ensure adequate ventilation.

Avoid breathing dust.

Avoid contact with skin and eyes.

Wear protective gloves/protective clothing/eye protection/face protection.

6.2 Environmental precautions

Do not let product get into the drainage.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposed materials without creating dust.

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

## 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Remove all sources of ignition.

Provide appropriate exhaust ventilation at places where dust is formed.

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

Avoid breathing dust.

Avoid contact with skin and eyes.

Wear protective gloves/protective clothing/eye protection/face protection.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Further information on storage conditions:

Store granulates and/or powders in closed containers and rooms.

Check for intact packaging upon receipt.

Avoid dispersion by wind or dust formation, as well as the release of synthetic polymer microparticles into the environment.

7.3 Specific end uses

No data available

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters Components with workplace control parameter

KOSHA : No data available

ACGIH : No data available

8.2 Exposure controls

Appropriate engineering controls : Ventilation

Respiratory protection : Dust mask

Hand protection : Protective gloves

Eye protection : Protective goggles

Skin and body protection : Working clothes

## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance : Solid (Not powder, Pellets) at 20 °C

b) Odour : No data available

c) Odour Threshold : No data available

d) pH : 6.5 ~ 7.5 at 20 °C ※ Sample : $H_2O$ = 1 : 5 (V/V)

e) Melting/freezing point and melting range : > 130 °C

f) Initial boiling point and boiling range : No data available

g) Flash point : No flash occurred under 93 °C (Rapid equilibrium method - closed cup)

h) Evaporation rate : No data available

i) Flammability

Burning time / rate : < 0.7 mm/s at 20 °C ※ UN TDG test & criteria - Test N1

j) Upper/lower flammability or explosive limits : No data available

k) Vapour pressure : No data available

l) Vapour density : No data available

m) Relative density : 1.2 at 20 °C

n) Water solubility : Insoluble

o) Partition coefficient (n-octanol/water) : No data available

p) Autoignition temperature : No spontaneous combustion under 400 °C

q) Decomposition temperature : No data available

r) Viscosity : No data available

s) Explosive properties : No data available

t) Oxidizing properties : No oxidizing hazard ※ UN TDG test & criteria - Test O1

9.2 Other safety information : No data available

## 10. STABILITY AND REACTIVITY

10.1 Reactivity : No data available

10.2 Chemical stability

Stable under general condition

10.3 Possibility of hazardous reactions : No data available

10.4 Conditions to avoid

Avoid breathing dust.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Carbon oxides

## 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

| | | | |
|---|---|---|---|
| Oral | rat | LD50 : | No data available ※ from US NLM / ECHA |
| Skin | rabbit | LD50 : | No data available |
| Inhalation | rat | LC50 (dust, 4 h) : | No data available |

Skin irritation : No data available

Eye irritation : No data available

Respiratory sensitization : No data available

Skin sensitization : No data available

Germ cell mutagenicity : No data available

Carcinogenicity : Not classifiable ※ from CCRIS / IARC

Reproductive toxicity : No data available

Specific target organ toxicity - single exposure (GHS) : No data available

Specific target organ toxicity - repeated exposure (GHS) : No data available

Aspiration hazard : No data available

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity

| | |
|---|---|
| Fish | LC50 : No data available ※ from US NLM / ECHA |
| Crustacean | EC50 : No data available |
| Algae | EC50 : No data available |

12.2 Persistence and degradability : No data available

12.3 Bioaccumulative potential : No data available

12.4 Mobility in soil : No data available

12.5 Results of PBT and vPvB assessment : No data available

12.6 Other adverse effects : No data available

## 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste treatment options

Appropriate disposal / Product:

Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely empty packaging of material residues before it is sent for disposal.

Other disposal recommendations:

Collect all polymer-containing waste separately from other waste streams and dispose of it in accordance with official regulations. Prevent the release of microparticles from waste streams into the environment.

## 14. TRANSPORT INFORMATION

14.1 UN-Number : Not applicable

14.2 UN proper shipping name

IATA : Not dangerous goods

ADR / RID : Not dangerous goods

IMDG : Not dangerous goods

14.3 Transport hazard class(es) : Not applicable

14.4 Packaging group : Not applicable

14.5 Environmental hazards

IATA : Not applicable ADR/RID : Not applicable IMDG Marine pollutant : Not applicable

14.6 Special precautions for users

Fire EmS Guide : F-E (Recommendation)

Spillage EmS Guide : Not dangerous goods

## 15. REGULATORY INFORMATION

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

Korea Industrial Safety and Health Act

GHS : Not applicable

Material(s) applied by workplace exposure limits : Not applicable

Korea Hazardous Materials Safety Control Act : Not hazardous material

Korea Chemicals Control Act : Not toxic chemical

Korea Persistant Organic Pollutants Control Act : Not applicable

OSHA Hazard : Not applicable

REACH Annex XVII (Restriction List)

| EU restriction list (REACH Annex XVII) | | |
|---|---|---|
| Reference code | Applicable on | Entry title or description |
| 78 | 1-Propene, polymer with carbon monoxide and ethene | The synthetic polymer microparticles supplied are subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council. |

| Entry 78 Ingredient information | | | |
|---|---|---|---|
| Name | CAS No. | Compound type | Conc.% |

| | | | |
|---|---|---|---|
| 1-Propene, polymer with carbon monoxide and ethene | 88995-51-1 | Synthetic polymer microparticles | 100 % |

15.2 Chemical Safety Assessment : Not applicable

## 16. OTHER INFORMATION

Issued Date : 2022. 03. 30.

Revision No. : 3

Revision Date : 2025. 12. 11.

References

- GHS Classification :

  Korea MSDS Testing Lab Certificate (Report No. 2020-03-004173), US NLM

- Physical and chemical properties : Korea MSDS Testing Lab Certificate

- Transport information : Korea MSDS Testing Lab Certificate

- Toxic & ecological information : OECD SIDS, ECHA, US NLM, HSDB, IARC, CCRIS, JP NITE

Acronyms and Websites

- ECHA : European chemical agency, http://echa.europa.eu/

- US NLM : U.S. National Library of Medicine, http://chem.sis.nlm.nih.gov/chemidplus/

- HSDB : US Hazardous Substances Data Bank, http://toxnet.nlm.nih.gov/

- CCRIS : US Chemical Carcinogenesis Research Information System, http://toxnet.nlm.nih.gov/

- IARC : International Agency for Research on Cancer, http://monographs.iarc.fr/

- JP NITE : Japan National Institute of Technology and Evaluation, http://www.safe.nite.go.jp/

※ Hazards Testing and Classification

Korea MSDS Testing Laboratory

Website : www.msdskorea.com

Telephone : +82 31 337 3701 / 3702

Address : 12, Iwon-ro, Idong-eup, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea (17128)

This SDS' composition/information on ingredient(s) and recommended use are provided by the mentioned company in this SDS' section 1.
This SDS is composed in line with Korea Occupational Safety and Health Act (KOSHA) Article 41, to protect the health of the employees, and for documentation.
This SDS is composed with reference to criteria provided by KOSHA.

- End –