KUMHO PETROCHEMICAL

According to Hazard Communication Standard (29 CFR 1910.1200)

GPPS

Version 1.0 First Issue date: 11/10/2022 Revision date: 01/02/2023

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SDS record number: CSSS-TCO-010-153196

| 1. Identification | |
|-----------------------------|---|
| Product name | GP125, GP125E, GP125EB,GP125G, GP150E,GP150I,GP150K |
| Synonyms | - |
| CAS # | See section 3 |
| Product code | - |
| Product use | General Purpose GPPS. |
| Manufacturer/Supplier | |
| Supplier(Manufacturer): | Korea Kumho Petrochemical Co., Ltd. |
| Address: | 260-257, Cheoyong-ro, Nam-Gu, Ulsan, 44785, Korea |
| Contact person(E-mail): | - |
| Telephone: | +82-52-279-8852 |
| Fax: | +82-52-279-8840 |
| Emergency telephone Number: | 1-858-987-0023 |
| 2. Hazard(s) identification | |
| GHS classification | |
| Physical hazards | Not classified |
| Health hazards | Not classified |
| Environmental hazards | Not classified |
| GHS label elements | |
| Hazard Pictograms | No hazard pictogram is used. |
| Signal word | No signal word is used. |
| Hazard statement | Not applicable. |
| Precautionary statement | |
| Prevention | Not applicable. |
| Response | Not applicable. |
| Storage | Not applicable. |
| Disposal | Not applicable. |
| Other hazards | Not available. |
| | |

3. Composition / information on ingredients

| Components | CAS# | Percent |
|---|-----------|---------|
| Ethenylbenzene homopolymer; Polystyrene | 9003-53-6 | 99~100% |

4. First-aid Measures

First aid procedures

Eye contact

Immediately flush eyes with plenty of water at least 15minutes. If irritation persists, get a doctor's examination.

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| Skin contact | Week the contominated skin area with running water. Remove contominated |
|-------------------------------------|--|
| Skin contact | Wash the contaminated skin area with running water. Remove contaminated clothes and shoes. If irritation persists, get a doctor's examination. |
| Inhalation | Intake the water to clean the throat and blow nose to remove the dust. Remove |
| | exposed person to fresh air. Take Artificial respiration if not breathing. Give |
| | oxygen, if breathing is difficult. Get medical attention. |
| Ingestion | Rinse mouth with water. Give large amounts of water to relieve stimulus. If |
| | irritation or symptoms occurs, get a doctor's examination. |
| Notes to physician | Treat symptoms. |
| | |
| 5. Fire-fighting measures | |
| Flammable properties | Not available. |
| Extinguishing media | |
| Suitable extinguishing media | Carbon Dioxide, Water, foam. Large fire : Water spray, regular foam. |
| Unsuitable extinguishing media | Do not use direct water. |
| Firefighting equipment/instructions | Wear appropriate personal protective equipment (see section 8. EXPOSURE |
| | CONTROLS/PERSONAL PROTECTION). Avoid inhalation of smoke or gas |
| | when fire fighting. Move container from fire area if it can be done without risk. |
| | Cool containers with water until well after fire is out. Stay upwind and keep out |
| | of low areas. Avoid inhalation of substance itself or combustion. |
| Hazardous combustion products | Generate pyrolysis such as carbon dioxide, carbon monoxide and styrene when |
| | combustion. |
| 6. Accidental release measures | |
| Personal precautions | Perform in accordance with [See section 8 . EXPOSURE CONTROLS / |
| | PERSONAL PROTECTION J. Put on appropriate personal protective |
| | equipment. Use a way to minimize dust. Avoid contact with eyes and skin. Avoid |
| | inhalation of substance itself or combustion. Evacuation against the wind. Keep |
| | unauthorized personnel out. Avoid contact with heat, sparks, flame or other |
| | ignition sources. |
| Environmental precautions | Avoid dispersal of spilt material and runoff and contact with waterways, drains |
| | and sewers. If large spills, advise emergency services. |
| Methods for cleaning up | For small spills: Remove all sources of ignition. Suppression occurrence of |
| | dust. Appropriate container for disposal of spilled material collected. Ventilate |
| | leak areas and clearing leak area. |
| | For large spills: Remove all sources of ignition. Suppression occurrence of |
| | dust. Avoid entering to sewers or water system. For disposal of spilled material |
| | in appropriate containers collected and clear surface. Appropriate container for |
| | disposal of spilled material collected. |
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7. Handling and storage

Handling

Handle in a well-ventilated place. Avoid contact with heat, sparks, flame or

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| other ignition sources. Remove all sources of ignition. Use all the equipment |
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| after the ground. Wash thoroughly after handling. |
| Keep in original container and tightly closed. Do not store where the moisture. |
| Avoid contact with incompatible materials. |

8. Exposure controls / personal protection

Storage

| Control parameters: | | | | | | |
|--|--|--|--|--|--|--|
| Occupational exposure limits | This mixture has no ingredients that have PEL, TLV, or other recommended | | | | | |
| | exposure limit. | | | | | |
| Biological limit values | No biological exposure limits noted for the ingredient(s). | | | | | |
| Appropriate engineering controls: | Use in a well-ventilated area. | | | | | |
| Individual protection measures, such as person | nal protective equipment: | | | | | |
| Eye / face protection | Wear primary eye protection such as splash resistant safety goggles with a | | | | | |
| | secondary protection face shield. Provide an emergency eye wash station and | | | | | |
| | quick drench shower in the immediate work area. | | | | | |
| Skin protection | Wear chemical resistant protected gloves if there is hazard potential for direct | | | | | |
| | skin contact. Wear heat resistant protected gloves to withstand the temperature | | | | | |
| | of molten product. Wear chemical resistant protected clothing if there is hazard | | | | | |
| | potential for direct contact. | | | | | |
| Respiratory protection | Respiratory protection may be needed. Respiratory protection is ranked in order | | | | | |
| | from minimum to maximum. Consider warning properties before use. | | | | | |
| | - Dust, mist, fume-purifying respiratory protection. | | | | | |
| | - Any air-purifying respirator with a corpuscle filter of high efficiency. | | | | | |
| | - Any respiratory protection with a electro motion fan(for dust, mist, | | | | | |
| | fume-purifying). | | | | | |
| | ※ For Unknown Concentration or Immediately Dangerous to Life or Health. | | | | | |
| | - Self-contained breathing apparatus(pressure-demand or other | | | | | |
| | positive-pressure mode in combination). | | | | | |
| | - Supplied-air respirator with full face piece. | | | | | |
| General hygiene | Wash hands, forearms and face thoroughly after handling chemical products, | | | | | |
| considerations | before eating, smoking and using the lavatory and at the end of the working | | | | | |
| | period. Keep away from foodstuffs, beverages and feed. Immediately remove | | | | | |
| | all soiled and contaminated clothing. | | | | | |

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9. Physical and chemical properties

| Appearance | |
|----------------|---------------|
| Physical state | Solid |
| Form | Pellet |
| Color | Colorless |
| Odor | Mild odor |
| Odor threshold | Not available |
| рН | Not available |

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| Vapor pressure | 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 |
| Explosion limits | Not available |
| Vapor density | Not available |
| Relative density | Not available |
| Solubility (water) | Insoluble |
| Partition coefficient | Not available |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| Specific gravity | Not available |
| Relative Density | 1.03-1.05 |
| Flammability limits in air, upper, %by volume | Not available |
| Flammability limits in air, lower, % by volume | Not available |
| VOC | Not available |
| Percent volatile | Not available |
| Other data | |
| Viscosity | Not available |
| | |
| 10. Stability and reactivity | |
| Chemical stability | Material is stable under normal conditions. |
| | |

| Conditions to avoid | Incompatible materials. Avoid contact with heat, sparks, flame or other ignition | | | |
|------------------------------------|--|--|--|--|
| | sources. | | | |
| Incompatible materials | Strong oxidizing agents. | | | |
| Hazardous decomposition products | Combustion may cause carbon oxide, nitrogen oxides. | | | |
| Possibility of hazardous reactions | No dangerous reactions known. | | | |

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11. Toxicological information

Toxicokinetics, metabolism and distribution:

| Non-human toxicological data: | Not available | | |
|---------------------------------------|-----------------|--|--|
| Information on toxicological effects: | | | |
| Acute toxicity: | | | |
| LD50(Oral, Rat): | Not available | | |
| LD50(Dermal, Rat): | Not available | | |
| LC50(Inhalation, Rat): | Not available | | |
| Skin corrosion/Irritation: | Not classified. | | |
| Serious eye damage/irritation: | Not classified | | |
| Respiratory or skin sensitization: | Not classified | | |
| Germ cell mutagenicity: | Not classified | | |

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| Carcinogenicity: | Not classified |
|-------------------------|----------------|
| Reproductive toxicity: | Not classified |
| STOT- single exposure: | Not classified |
| STOT-repeated exposure: | Not classified |
| Aspiration hazard: | Not classified |

12. Ecological information

Toxicity:

Transport hazard class(es)

| IOXIC | ity: | | | | | | | |
|---------------------------------|--------------|---------------|---------------|-----------------|-----------------------|-----------------|------------------|---------------|
| | Acute to | oxicity | Time | Species | Method | Evaluation | Remarks | |
| | LC50 | N/A | 96h | Fish | OECD 203 | N/A | N/A | |
| | EC50 | N/A | 48h | Daphnia | OECD 202 | N/A | N/A | |
| | EC50 | N/A | 72h | Algae | OECD 201 | N/A | N/A | |
| Persistend | e and deg | radability: | Not a | available. | | | | |
| Bioaccum | ulative pote | ential: | Not a | available. | | | | |
| Mobility in soil: Not availa | | | | | | | | |
| Results of PBT&vPvB assessment: | | | | available. | | | | |
| Other adve | erse effects | 5: | No k | nown significa | ant effects or critic | cal hazards. | | |
| | | | | | | | | |
| 13. Disp | osal cons | siderations | | | | | | |
| Disposal i | nstructions | 5 | Disp | ose of | contents/co | ntainer in | accorda | nce with |
| | | | local | /regional/natio | onal/international | regulations. | | |
| Contamina | ated packa | ging | Sinc | e emptied co | ntainers may ret | tain product re | sidue, follow la | abel warnings |
| | | | even | after contain | er is emptied. | | | |
| | | | | | | | | |
| 14. Trans | sport info | ormation | | | | | | |
| DOT | | | | | | | | |
| Basic | shipping r | equirements: | | | | | | |
| UN nu | mber | | Not i | regulated | | | | |
| Prope | r shipping | name | Not i | regulated | | | | |
| Hazaro | d class | | Not i | regulated | | | | |
| Packir | ng group | | Not i | regulated | | | | |
| Enviro | onmental h | azards | No | | | | | |
| ΙΑΤΑ | | | | | | | | |
| UN nu | mber | | Not i | regulated | | | | |
| UN pro | oper shippi | ing name | Not regulated | | | | | |
| Trans | port hazaro | l class(es) | Not regulated | | | | | |
| Packir | ng group | | Not regulated | | | | | |
| Enviro | onmental h | al hazards No | | | | | | |
| IMDG | | | | | | | | |
| UN nu | mber | | Not i | regulated | | | | |
| UN pro | oper shippi | ing name | Not i | regulated | | | | |
| _ | | | | | | | | |

Not regulated

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| Packing group | Not regulated |
|-----------------------|---------------|
| Environmental hazards | No |

15. Regulatory information

US federal regulations

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

16. Other information, including date of preparation or last revision

| HMIS®ratings | Health: 0 |
|-----------------------|--|
| | Flammability: 1 |
| | Physical hazard: 0 |
| NFPA ratings | Health: 0 |
| | Flammability: 1 |
| | Instability: 0 |
| Disclaimer | The information in the sheet was written based on the best knowledge and |
| | experience currently available. |
| First Issue date | 11-10-2022 |
| Revision date/version | 01-02-2023 |