

H4540

Version 1.6

Date of last issue: 2017/11/30

Revision Date: 2019/02/27

Date of first issue: 2015/01/01

1. PRODUCT AND COMPANY IDENTIFICATION**Product name** : H4540**Recommended use of the chemical and restrictions on use**

Recommended use : Raw material for industry

Restrictions on use : Prohibition of recommendation applications outside of use

Manufacturer or supplier's details

Company : LOTTE Chemical Corporation

Address : Lotte World Tower, 300, Olympic-ro, Songpa-gu, Seoul, 05551
Rep. of KOREATelephone : Head-Office 82-2-829-4190
Yeosu Plant 82-61-688-2021
Daesan Plant 82-41-689-5800
Ulsan Plant 82-52-278-3421Emergency telephone number : Head-Office 82-2-829-4190
Yeosu Plant 82-61-688-2021
Daesan Plant 82-41-689-5800
Ulsan Plant 82-52-278-3421

Telefax : 82-2-834-6070

2. HAZARDS IDENTIFICATION**GHS Classification**

This material is not classified as hazardous under the Article 39 Paragraph 1 of the Industrial Safety and Health Act (ISHA). It is not regulated for the MSDS creation and labeling by the provision of Article 41 Paragraph 1 of the ISHA.

GHS label elements

This material is not classified as hazardous under the Article 39 Paragraph 1 of the Industrial Safety and Health Act (ISHA). It is not regulated for the MSDS creation and labeling by the provision of Article 41 Paragraph 1 of the ISHA.

Other hazards which do not result in classification

According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified.

NFPA Grade(0~4 level)

Health 1, Fire 1, Instability 0

3. COMPOSITION/INFORMATION ON INGREDIENTS**Components**

Chemical name	Common Name	CAS-No.	Concentration (%)
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Trade Secret	Trade Secret	Trade Secret	>= 0.1 ~ < 1
Polypropylene	Polypropylene	9003-07-0	>= 95 ~ <= 100

4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- In case of skin contact : If skin irritation persists, call a physician.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- If swallowed : Induce vomiting immediately and call a physician.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : None known.
- Protection of first-aiders : Keep the medical staff know about the substance to take protective measures
- Notes to physician : Inform the healthcare personnel of the contamination situation and have them take appropriate protective measures

5. FIREFIGHTING MEASURES**Suitable and unsuitable extinguishing media**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- Unsuitable extinguishing media : High volume water jet

- Specific hazards during firefighting** : No data available

- Hazardous combustion prod- : inhalation of combustion products may be harmful

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Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Advice on safe handling : Avoid formation of respirable particles.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : No materials to be especially mentioned.

Recommended storage temperature : 21 - 23 °C

Storage period : No data available

Packaging material : Unsuitable material: Keep container closed to avoid excessive dust accumulation and prevent contamination.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

No data available

Engineering measures : Ensure adequate ventilation and exhaust ventilation at the workplace.**Personal protective equipment**Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.
Dust safety masks are recommended when the dust concentration is more than 10 mg/m³.Eye protection : Eye wash bottle with pure water
Tightly fitting safety gogglesHand protection
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.Skin and body protection : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIESAppearance : Solid form
Colour : translucent
Odour : odourless
Odour Threshold : No data available
pH : Not applicable
Melting point/range : 150 - 170 °C
Boiling point/boiling range : Not applicable
Flash point : Not applicable
Evaporation rate : Not applicable
Flammability (solid, gas) : No data available
Flammability (liquids) : No data available

SAFETY DATA SHEET



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Burning rate	:	No data available
Self-ignition	:	No data available
Burning number	:	No data available
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	Not applicable
Bulk density	:	No data available
Solubility(ies)	:	
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Relative vapour density	:	Not applicable
Relative density	:	No data available
Density	:	0.89 - 0.91 g/cm ³
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	> 380 °C
Decomposition temperature	:	> 300 °C
Self-Accelerating decomposition temperature (SADT)	:	No data available
Temperature of Polymerisation (SAPT)	:	No data available
Viscosity	:	
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Flow time	:	No data available
Solvent separation	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Self-heating substances	:	No data available
Heat of combustion	:	No data available

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Impact sensitivity	:	No data available
Surface tension	:	No data available
Conductivity	:	No data available
Molecular weight	:	> 1,000 g/mol
Minimum explosible dust concentration	:	No data available
Dust deflagration index (Kst)	:	No data available
Dust explosion class	:	No data available
Radioactivity	:	No data available
Metal corrosion rate	:	No data available
Particle size	:	No data available
Particle Size Distribution	:	No data available

10. STABILITY AND REACTIVITY

Chemical stability and possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Combustible material
Hazardous decomposition products	:	No data available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : No data available

Health hazard information**Acute toxicity****Product:**

Acute oral toxicity : LD50 (Rat): > 8,000 mg/kg

Components:**Trade Secret:**

No data available

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Skin corrosion/irritation

Product:

Remarks: Non-irritating at room temperature but in contact with hot molten resin can cause severe burned.

Components:

Trade Secret:

No data available

Serious eye damage/eye irritation

Product:

Remarks: In direct contact with resin may includes irritating and redness.

Components:

Trade Secret:

Remarks: Product dust may be irritating to eyes, skin and respiratory system.

Respiratory or skin sensitisation

Product:

Remarks: Resin itself is inert and harmless but dust may includes respiratory tract irritation and coughing.

Carcinogenicity

Product:

Result: IARC : Group 3

Germ cell mutagenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

Components:

Trade Secret:

No data available

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

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Remarks: No data available

Components:**Trade Secret:**

Remarks: No data available

Trade Secret:

Remarks: No data available

12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Trade Secret:**

No data available

Persistence and degradability**Components:****Trade Secret:**

Biodegradability : Biodegradation: 28 %

Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: Not applicable

Components:**Trade Secret:**

Bioaccumulation : Bioconcentration factor (BCF): 3.16

Mobility in soil**Product:**

Stability in soil : Remarks: Not expected to adsorb on soil.

Other adverse effects

No data available

Product:

Additional ecological information : No known ecotoxicity. However, birds, fish and other wildlife can be affected if ingested by waterfowl or aquatic life.

Hazardous to the ozone layer

Not applicable

Components:**Trade Secret:**

Additional ecological information : No data available

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Trade Secret:

Additional ecological information : No data available

13. DISPOSAL CONSIDERATIONS**Disposal methods**Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.**Disposal precautions**

Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
EmS Code : Not applicable
Marine pollutant : Not applicable**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

National Regulations

Refer to section 15 for specific national regulation.

Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION**National regulatory information**

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Regulation under the Occupational Safety and Health Act**Harmful Substances Prohibited from Manufacturing**

Not applicable

Harmful Substances Required Permission for Manufacture

Not applicable

Hazardous substances requiring management

Not applicable

Controlled Substances Subject to Environment Monitoring

Not applicable

Controlled Substances Subject to Health Examination

Not applicable

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act**Toxic Chemicals**

Not applicable

Restricted Chemicals

Not applicable

Prohibited Chemicals

Not applicable

Toxic Release Inventory

Not applicable

Accident Precaution Chemicals

Not applicable

Dangerous Substances Safety Management Act

Not Applicable to Dangerous Materials

Air Pollution Control Act**Hazardous Air Pollutants**

Not applicable

Wastes Control Act

Industrial waste

Follow article 13 of the act to dispose the product waste

Other requirements in domestic and other countries**The components of this product are reported in the following inventories:**

REACH	:	
DSL	:	All components of this product are on the Canadian DSL
AICS	:	On the inventory, or in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
ISHL	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory

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PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI	: On the inventory, or in compliance with the inventory
TSCA	: On TSCA Inventory
Framework Act on Fire Services	: Special combustibles(Synthetic resin)

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

16. OTHER INFORMATION**Further information**

Sources of key data used to compile the Safety Data Sheet : Information taken from reference works and the literature., KOSHA, ECHA, NITE

Revision number and date

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Other information

Date format : yyyy/mm/dd

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.