Safety Data Sheet (SDS)

According to Regulation (EC) No 453/2010

No Post Cure,SH2540U

Date of issue: 2013-06-05 **Revision date: Not applicable** **Version: R0001.0001**

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

1.1. Product identifier

Trade name/designation : No Post Cure,SH2540U

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

1.2.1. Relevant identified uses

- Industrial. Elastomer product

1.2.2. Uses advised against

- Not available

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier : KCC Corporation
Address : Daejuk-ri 11-4, Daesan-eup, Seosan-si, Chungcheongnam-do, Korea
Telephone : 82-41-660-8700
Email :

1.4. Emergency telephone number

Telephone number : 82-41-660-8700

SECTION 2: HAZARD IDENTIFICATION

2.1. Classification of the substance/mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

- Chronic aquatic toxicity : Category4, H413

2.1.2 Classification according to Directive 1999/45/EC

- N; R53 May cause long-term adverse effects in the aquatic environment.

2.2. Label elements

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

*** Hazard Pictogram(s)**

- Not applicable

*** Signal word** : Not applicable

*** Hazard statement(s)**

- H413 May cause long lasting harmful effects to aquatic life

*** Precautionary statement(s)**

1) Prevention

- P273 Avoid release to the environment.

2) Response

- Not applicable

3) Storage

- Not applicable

4) Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulation

2.2.2. Labelling according to Directive 1999/45/EC

*** Symbol(s)**

- Not applicable

*** Risk Phrases**

- N; R53 May cause long-term adverse effects in the aquatic environment.

*** Safety Phrases**

- S57 Use appropriate container to avoid environmental contamination.

2.3. Other hazards

- Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

- Not applicable

3.2. Mixtures

Name	CAS No.	REACH No.	% [weight]	Classification [67/548/EEC]	Classification [1272/2008/EC]
Siloxanes and Silicones, di-Me, Me vinyl, vinyl group-terminated	68083-18-1	-	70 ~ 80	-	Aquatic Choronic 4, H413
Silicon dioxide	112945-52-5	-	10 ~ 20	-	STOT SE 3, H335
Siloxanes and Silicones, di-Me, hydroxy-terminated	70131-67-8	-	1 ~ 10	-	Flam. Liq. 3, H226
Secret	-	-	1 ~ 10	-	-

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General

- No general infomation.

Inhalation

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.

Skin

- Flush skin with plenty of wter for at least 15 minutes while removing contaminated clothing and shoes.
- Laundering enough contaminated clothing before reuse.

Eye

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15minutes and call a doctor/physician.

Ingestion

- About whether I should induce vomiting Take the advice of a doctor.
- Rinse your mouth with water immediately.

4.2. Most important symptoms and effects, both acute and delayed

- Not available

4.3. Indication of any immediate medical attention and special treatment needed

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray

Unsuitable extinguishing media

- Avoid use of water jet for extinguishing

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

- Not available

5.3. Advice for firefighters

- Move containers from fire area, if you can do without the risk.
- Keep unauthorized personnel out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Notify your local firestation and inform the location of the fire and characteristics hazard.
- Using a unattended and water devices in case of large fire and leave alone to burn if you do not imperative.
- Keep containers cool with water spray.
- Use fire fighting procedures suitable for surrounding area.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment: Wear proper protective equipment.
- Emergency procedures: Not applicable
- If required, notify relevant authorities according to all applicable regulations.

6.1.2. For emergency responders

- Wear proper personal protective apparatus as indicated in Section 8 and avoid skin contact and inhalation.
- Ventilate closed spaces before entering.
- Move container to safe area from the leak area.
- Handling the damaged containers or spilled material after wearing protective equipment.

6.2. Environmental precautions

- Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.
- Avoid dispersal of spilt material and runoff and contact with waterways, drains and sewers. If large spills, advise emergency services.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

- Clean up all spills immediately.
- Prevent, by any means available, spillage from entering drains or water course.
- No smoking, naked lightsor ignition sources.
- Stop leak if safe to do so.

6.3.2. For cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notification to central government, local government. When emissions at least of the standard amount
- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected.
- Small liquid state spills: Appropriate container for disposal of spilled material collected.
- For disposal of spilled material in appropriate containers collected and clear surface.
- Prevent the influx to waterways, sewers, basements or confined spaces.

6.3.3. Other information

- Slippery when spilt.

6.4. Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for information on disposal.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

- Avoid direct physical contact.
- Dealing only with a well-ventilated place.
- Do not handle until all safety precautions have been read and understood.

- Operators should wear antistatic footwear and clothing.

7.2. Conditions for safe storage, including any incompatibilities

- Save in cool, dry and well ventilated place.
- Check regularly for leaks.
- Do not use damaged containers.
- Save applicable laws and regulations.
- Do not apply any physical shock to container.
- Collected them in sealed containers.
- Store away from water and sewer.

7.3. Specific end use(s)

- See Section 1 for information on 1.2 Relevant identified uses.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational exposure limits

European Union (EU) Commission Directive 2006/15/EC (IOELVs)

- Not available

European Union (EU) Commission Directive 2006/15/EC (IOELVs) - Skin

- Not available

Greece Occupational Exposure Limits

- Not available

Netherlands Occupational Exposure Limits

- Not available

Denmark Indicative List of Organic Solvents

- Not available

Denmark List of Limit Values for Dust

- Not available

Latvia Occupational Exposure Limit Values (OELV) for Chemical Substances in the Work Environment AtmbExcel Air & Hydraulics9

- Not available

Latvia Carcinogens and their Occupational Exposure Limit Values (OELV)

- Not available

Bulgaria Occupational Exposure Limits

- [Silicon dioxide] - Limit values 15 min : 6.0 mg/m³ (Огнеупорна глина, съдържа-ща под 2 % свободен криста-лен силициев диоксид Инхалабилна фракция)
- [Silicon dioxide] - Limit values 15 min : 10.0 mg/m³ (Прах неразтворим, съдържащ под 2 % свободен кристален силициев диоксид в респира-билната фракция (несъдър-жащ влакнести)
- [Silicon dioxide] - Limit values 15 min : 5.0 mg/m³ (Прах смесен, съдържащ над 2 % свободен кристален си-лициев диоксид в респи ра-билната фракция Инхалабилна фракция)
- [Silicon dioxide] - Limit values 15 min : 0.07 mg/m³ (Силициев диоксид свободен, аморфен, синтетичен от кон-дензационни и елект ротер-мични процеси Респирабилна фракция)
- [Silicon dioxide] - Limit values 15 min : 4.0 mg/m³ (Силициев диоксид свободен, аморфен и криптокристален, от природни утаечни процеси (опал, халцедон и др.) Инхалабилна фра)
- [Silicon dioxide] - Limit values 15 min : 0.07 mg/m³ (Силициев диоксид свободен кристален (кварц, тридимит, кристобалит) и кварц ово стъкло Респирабилна фракция)
- [Silicon dioxide] - Limit values 15 min : 8.0 mg/m³ (Циментов прах, съдържащ под 2 % свободен кристален силициев диоксид в респ ира-билната фракция Инхалабилна фракция)
- [Silicon dioxide] - Limit values 15 min : 1.0 mg/m³ (Силициев диоксид свободен, аморфен и криптокристален, от природни утаечни процеси (опал, халцедон и др.) Респирабилна фр)
- [Silicon dioxide] - Limit values 15 min : 0.07x100/Z* mg/m³ (Прах смесен, съдържащ над 2 % свободен кристален си-лициев диокси д в респира-билната фракция Респирабилна фракция)
- [Silicon dioxide] - Limit values 15 min : 4.0 mg/m³ (Прах неразтворим, съдържащ под 2 % свободен кристален силициев диоксид в р еспира-билната фракция (несъдър-жащ влакнести)

Bulgaria Limit values for the chemical agents in the air at the working environment

- Not available

Sweden Occupational Exposure Limit Values

- Not available

Sweden Occupational Exposure Limit Values and Measures against Air Contaminants

- Not available

Spain Changes Proposed for Occupational Limit Values

- Not available

Spain Occupational Exposure Limit for Chemical Agents

- Not available

Slovak Republic Highest Admissible Exposure Limits

- Not available

Slovak Republic Highest Admissible Exposure Limits - Solid aerosols predominately with fibrogenic effect

- Not available

Slovak Republic Highest Admissible Exposure Limits - Solid aerosols with possible fibrogenic effect

- Not available

Slovak Republic Highest Admissible Exposure Limits - Solid aerosols predominately with nonspecific effect

- Not available

Ireland Occupational Exposure Limits

- [Silicon dioxide] - Occupational Exposure Limit Value (8-hour reference period) : 6 mg/㎥ (Silica, amorphous total inhalable dust)
- [Silicon dioxide] - Occupational Exposure Limit Value (8-hour reference period) : 2.4 mg/㎥ (Silica, amorphous respirable dust)

UK Workplace Exposure Limits (WELs)

- Not available

Austria Technical Exposure Limits (TRK Values)

- Not available

Austria Occupational Exposure Limits - Maximum Workplace Concentrations (MAK)

- [Silicon dioxide] - TMW : 4 mg/㎥ (Kieselsäuren, amorphe a) kolloidale amorphe Kieselsäure einschl. pyrogener Kieselsäure und im Nassverfahren hergestellte)
- [Silicon dioxide] - TMW : 0.3 mg/㎥ (Kieselsäuren, amorphe b) Kieselglas, Kieselgut Kieselrauch, gebrannter Kieselgur)

Italy Occupational Exposure Limits

- Not available

Czech Republic Occupational Exposure Limits (PEL and NPK-P)

- Not available

Czech Republic Occupational Exposure Limits - Dusts predominately with fibrogenic effect

- [Silicon dioxide] - NPELr or NPELc : 0.1 mg/㎥ (kremen)

Czech Republic Occupational Exposure Limits - Dusts with possible fibrogenic effect

- Not available

Czech Republic Occupational Exposure Limits - Dusts predominately with nonspecific effect

- Not available

Czech Republic Occupational Exposure Limits - Dusts predominately with irritating effect

- Not available

Czech Republic Occupational Exposure Limits - Mineral fibrous dusts

- Not available

Poland Workplace Maximum Allowable Concentration - Dust

- [Silicon dioxide] - Najwyzsze dopuszczalne stezenie : 2 mg/㎥ (Pyły zawierające wolną (krystaliczną) krzemionkę powyżej 50% a) pył cał kowity1)
- [Silicon dioxide] - Najwyzsze dopuszczalne stezenie : 0.3 mg/㎥ (Pyły zawierające wolną (krystaliczną) krzemionkę powyżej 50% b) pył respirabilny2)
- [Silicon dioxide] - Najwyzsze dopuszczalne stezenie : 4 mg/㎥ (Pyły zawierające wolną (krystaliczną) krzemionkę od 2% do 50% a) pył cał kowity1)
- [Silicon dioxide] - Najwyzsze dopuszczalne stezenie : 1 mg/㎥ (Pyły zawierające wolną (krystaliczną) krzemionkę od 2% do 50% b) pył respirabilny2)

Poland Workplace Maximum Allowable Concentration

- Not available

France Threshold Limit Values for Occupational Exposure - VLE/VME

- Not available

Finland Occupational Exposure Levels - Concentrations Known to be Harmful

- [Silicon dioxide] - HTP Value (8h) : 5 mg/㎥ (Kiseldioxid, amorfisk)

Hungary Occupational Exposure Limits

- Not available

8.1.2. Recommended Monitoring Procedures

- Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

8.1.3. DNEL/PNEC - Values

- Not available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

- A system of local and/or general exhaust is recommended to keep employee exposures above the Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. The use of local exhaust ventilation is recommended to control emissions near the source.

8.2.2. Indivisual protection measures, such as personal protective equipment

Hand protection

- Wear appropriate glove.

Eye 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.

Respiratory Protection

- Under conditions of frequent use or heavy exposure, 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 electromotion fan(for dust, mist, fume-purifying)
- Self-contained breathing apparatus with a corpuscle filter of high efficiency
- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.

Skin protection

- Wear appropriate glove.

Others

- It is necessary to wear protective clothes and other protection equipment. Cover your face, head and neck.
- Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.
- Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.

Thermal hazards

- Not available

8.2.3 Environmental exposure controls

- Do not let product enter drains. For ecological information refer to section 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance(State)	Solid(Other)
Appearance(Color)	light yellow
Odor	Oderless
Odor threshold	Not available
pH	Not available
Melting point/Freezing point	Not available
Initial boiling point and boiling range	Not available
Flash point	315.5 ℃
Evaporation rate	Not available
Flammability(solid, gas)	Not available
Upper/Lower Flammability or explosive limits	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1.08~1.12
Solubility	Insoluble
Partition coefficient of n-octanol/water	Not available
Autoignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available

Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

- Not available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

- Not available

10.2. Chemical stability

- This material is stable under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

10.4. Conditions to avoid

- Avoid contact with incompatible materials and condition.
- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces

10.5. Incompatible materials

- Not available

10.6. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Acute toxicity

- Oral

- [Silicon dioxide] : LD50 > 3100 ㎎/㎏ Rat
- [Siloxanes and Silicones, di-Me, hydroxy-terminated] : LD50 > 64 ㎎/㎏ Rat

- Dermal

- [Siloxanes and Silicones, di-Me, hydroxy-terminated] : LD50 > 16 ㎎/㎏ Rabbit

- Inhalation

- Not available

11.2. Skin corrosion/irritation

- Not available

11.3. Eye corrosion/irritation

- Not available

11.4. Respiratory sensitization

- Not available

11.5. Skin sensitization

- Not available

11.6. Mutagenicity

- Not available

11.7. Carcinogenicity

- IARC

- [Silicon dioxide] : Group 3 (Silica, amorphous)

- OSHA

- Not available

- ACGIH

- Not available

- NTP

- Not available

- EU CLP

- Not available

11.8. Reproductive toxicity

- Not available

11.9. Specific target organ toxicity(single exposure):

- Not available

11.10. Specific target organ toxicity(repeated exposure):

- Not available

11.11. Aspiration hazard

- Not available

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Fish

- Not available

12.1.2. Invertebrate

- Not available

12.1.3. Algae

- Not available

12.2. Persistence and degradability

12.2.1. Persistence

- [Siloxanes and Silicones, di-Me, Me vinyl, vinyl group-terminated] : log Kow = 7.00 (Estimates)
- [Siloxanes and Silicones, di-Me, hydroxy-terminated] : log Kow = 2.43

12.2.2. Degradability

- Not available

12.3. Bioaccumulative potential

12.3.1. Bioaccumulation

- [Siloxanes and Silicones, di-Me, Me vinyl, vinyl group-terminated] : BCF = 207 (Estimates)
- [Siloxanes and Silicones, di-Me, hydroxy-terminated] : BCF = 14.77

12.3.2. Biodegradability

- Not available

12.4. Mobility in soil

- [Siloxanes and Silicones, di-Me, Me vinyl, vinyl group-terminated] : Koc = 216300000 (Can be adsorbed in the soil, Estimates)

12.5. Results of PBT and vPvB assessment

- Not available

12.6. Other adverse effects

- May cause long lasting harmful effects to aquatic life

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

- Since more than two kinds of designaed waste is mixed, it is difficult to treat seperatly, then can be reduction or stabilization by incineration or similar process.
- If water separation is possible, pre-process with Water separation process.
- Dispose by incineration.
- The user of this product must disposal by oneself or entrust to waste disposer or person who other's waste recycle and dispose, person who establish and operate waste disposal facilities.
- Dispose of waste in accordance with all applicable laws and regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

- Not available

14.2. UN proper shipping name

- Not available

14.3. Transport hazard class(es)

- Not available

14.4. Packing group

- Not available

14.5. Environmental hazard

- Not applicable

14.6. Special precautions for user

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.

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

15.1.1. Europe regulatory

REACH Restricted substance under REACH

- Not applicable

REACH Substances subject to authorization under REACH

- Not applicable

REACH SVHC

- Not applicable

Europe PBT

- Not applicable

European Union (EU) Transport of Dangerous Goods by Road - Dangerous Goods List

- Not applicable

15.2. Chemical Safety Assessment

- Not conducted

SECTION 16: OTHER INFORMATION

16.1. Indication of changes

- The Safety Data Sheet has been reviewed and the data therein were revised and laid out according the requirements of the Commission Regulation (EU) No. 453/2010

16.2. Abbreviations and acronyms

- 1272/2008 CLP : Classification, Labelling and Packaging regulation.
- REACH : Registration, Evaluation and authorisation of chemical substances.

- DNEL : Derive no effects level
- PNEC : Predicted no effect concentration

16.3. Key literature references and sources for data

- This Safety Data Sheet was compiled with data and information from the following sources: RTECS, ECOSAR, HSDB, SIDS SIAP, ChemWATCH, CESAR, Chemical DB

16.4. Relevant R phrases and H statements

- See Section 2.1 for information on Classification of the mixture.

16.5. Training advice

- Not applicable

16.6. Further information

- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.
- This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only.
- It should not therefore be construed as guaranteeing any specific property of the product.