



MATERIAL SAFETY DATA SHEET

SCM-BASE PART (A)

Date of issue: 2014-02-04

Revision date: 2015-05-08

Version: R0002.0001

1. IDENTIFICATION

A. Product name

SCM-BASE PART A

B. Recommended use and restriction on use

- General use : Main ingredients of polyurea. Waterproof, anti-rust, coating material
- Restriction on use : Not available

C. Manufacturer / Supplier / Distributor information

o Manufacturer information

- Company name : SCM
- Address : 507-1604 , HAKYAE-RO 55, ANGDONG-MYEN, EUMSUNG-KUN, CHUNGCHEONGBUK-DO,KOREA
- Dept. : SCM Sales
- Telephone number : +82-70-7739-6268
- Emergency telephone number : +82-70-7739-6268
- Fax number : +82-43-883-6268
- E-mail address : sonata1974@naver.com

o Supplier/Distributor information

- Company name : SCM
- Address : 507-1604 , HAKYAE-RO 55, ANGDONG-MYEN, EUMSUNG-KUN, CHUNGCHEONGBUK-DO,KOREA
- Dept. : SCM Sales
- Telephone number : +82-70-7739-6268
- Emergency telephone number : +82-70-7739-6268
- Fax number : +82-43-883-6268
- E-mail address : sonata1974@naver.com

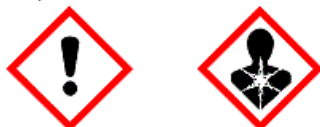
2. HAZARD IDENTIFICATION

A. GHS Classification

- Skin corrosion/irritation : Category2
- Serious eye damage/irritation : Category2A
- Respiratory sensitization : Category1

B. GHS label elements

o Hazard symbols



o Signal words

- Danger

o Hazard statements

- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

o Precautionary statements

- 1) Prevention

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P285 In case of inadequate ventilation wear respiratory protection.

2) Response

- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P362 Take off contaminated clothing and wash before reuse.

3) Storage

- Not applicable

4) Disposal

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

C. Other hazards which do not result in classification : (NFPA Classification)

o NFPA grade (0 ~ 4 level)

- Health : 2, Flammability : 1, Reactivity : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Trade names and Synonyms	CAS No.	Content(%)
Polyisocyanate	-	Trade secret	Trade secret
4-Methyl-1,3-dioxolan-2-one	Propylene carbonate	108-32-7	

4. FIRST AID MEASURES

A. Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.
- Go to the hospital immediately if symptoms (flare, irritate) occur.
- Remove contact lenses if worn.

B. Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Laundering enough contaminated clothing before reuse.
- Go to the hospital immediately if symptoms (flare, irritate) occur.
- Wash thoroughly after handling.

C. Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.
- Go to the hospital immediately if symptoms (flare, irritate) occur.
- If breathing is stopped or irregular, give artificial respiration and supply oxygen.

D. Ingestion contact

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

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.
- Remove to fresh air and keep at rest in a position comfortable for breathing.

5. FIREFIGHTING MEASURES

A. Suitable (Unsuitable) extinguishing media

- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
- Avoid use of water jet for extinguishing

B. Specific hazards arising from the chemical

- Not available

C. Special protective actions for firefighters

- Cool containers with water until well after fire is out.
- Keep unauthorized personnel out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Notify your local fire station and inform the location of the fire and characteristics hazard.
- Wear appropriate protective equipment.
- Keep containers cool with water spray.
- Vapor or gas is burned at distant ignition sources can be spread quickly.

6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Wear proper personal protective apparatus as indicated in Section 8 and avoid skin contact and inhalation.
- Do not touch spilled material. Stop leak if you can do it without risk.
- Move container to safe area from the leak area.
- Handling the damaged containers or spilled material after wearing protective equipment.
- Do not direct water at spill or source of leak.
- Avoid skin contact and inhalation.

B. Environmental precautions

- Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.

C. Methods and materials for containment and 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 leak: sand or other non-combustible material, please let use absorption.
- Wipe off the solvent.
- Dike for later disposal.

7. HANDLING AND STORAGE

A. Precautions for safe handling

- Wash thoroughly after handling.
- Refer to Engineering controls and personal protective equipment.
- Dealing only with a well-ventilated place.
- Do not inhale the steam prolonged or repeated.

B. Conditions for safe storage, including any incompatibilities

- Save in cool, dry and well ventilated place.
- Check regularly for leaks.
- Do not apply direct heat.
- Keep sealed when not in use.

- Prevent static electricity and keep away from combustible materials or heat sources.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

- **ACGIH TLV**
 - Not available

B. 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.

C. Personal protective equipment

- **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.
 - Any chemical cartridge respirator with organic vapor cartridge(s).
 - Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
 - Any air-purifying respirator with a full facepiece and an organic vapor canister.
 - 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.
- **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.
- **Hand protection**
 - Wear appropriate glove.
- **Skin protection**
 - Wear appropriate clothing.
- **Others**
 - Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	
- Appearance	Liquid
- Color	Clear transparent
B. Odor	Not available
C. Odor threshold	Not available
D. pH	Weak acid
E. Melting point/Freezing point	Not available
F. Initial Boiling Point/Boiling Ranges	>110°C
G. Flash point	252°C
H. Evaporation rate	Not available
I. Flammability(solid, gas)	Not available
J. Upper/Lower Flammability or explosive limits	Not available
K. Vapour pressure	<20 mmHg (20°C)
L. Solubility	Insoluble in water
M. Vapour density	<1 (Air=1)
N. Specific gravity(Relative density)	1.16±0.1
O. Partition coefficient of n-octanol/water	Not available
P. Autoignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	600±200
S. Molecular weight	Not available

10. STABILITY AND REACTIVITY

A. Chemical Stability and Reactivity

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

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

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

D. Incompatible materials

- Not available

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

- **(Respiratory tracts)**
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
- **(Oral)**
 - Not available
- **(Eye·Skin)**
 - Causes serious eye irritation
 - Causes skin irritation

B. Delayed and immediate effects and also chronic effects from short and long term exposure

- **Acute toxicity**
 - * **Oral**
 - [4-Methyl-1,3-dioxolan-2-one] : LD50=29100 mg/kg Rat
 - * **Dermal**
 - [4-Methyl-1,3-dioxolan-2-one] : LD50>20,000 mg/kg Rabbit
 - * **Inhalation**
 - [4-Methyl-1,3-dioxolan-2-one] : Steam LC50 > 5 mg/L Rat
- **Skin corrosion/irritation**
 - Causes skin irritation
- **Serious eye damage/irritation**
 - Causes serious eye irritation
- **Respiratory sensitization**
 - [Polyisocyanate] : May cause allergy or asthma symptoms or breathing difficulties if inhaled
- **Skin sensitization**
 - Not available
- **Carcinogenicity**
 - * **IARC**
 - Not available
 - * **OSHA**
 - Not available
 - * **ACGIH**
 - Not available
 - * **NTP**
 - Not available
 - * **EU CLP**
 - Not available
- **Germ cell mutagenicity**
 - Not available

- **Reproductive toxicity**
 - Not available
- **STOT-single exposure**
 - Not available
- **STOT-repeated exposure**
 - Not available
- **Aspiration hazard**
 - Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

- **Fish**
 - [4-Methyl-1,3-dioxolan-2-one] : LC50 > 1000 mg/ℓ 96 hr Other
- **Crustaceans**
 - [4-Methyl-1,3-dioxolan-2-one] : EC50 > 1000 mg/ℓ 48 hr Daphnia magna
- **Algae**
 - [4-Methyl-1,3-dioxolan-2-one] : EC50 > 900 mg/ℓ 72 hr Scenedesmus subspicatus

B. Persistence and degradability

- **Persistence**
 - [4-Methyl-1,3-dioxolan-2-one] : log Kow = -0.41
- **Degradability**
 - [4-Methyl-1,3-dioxolan-2-one] : COD = 1290 BOD5/COD = 0.019

C. Bioaccumulative potential

- **Bioaccumulative potential**
 - [4-Methyl-1,3-dioxolan-2-one] : BCF = 3.162
- **Biodegradation**
 - [4-Methyl-1,3-dioxolan-2-one] : Biodegradability = 68 (%) 4 week (89,90%)

D. Mobility in soil

- Not available

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- Since more than two kinds of designaed waste is mixed, it is difficult to treat sepearatly, 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.
- Will be pre-processed by the separation of oil and water.

B. Special precautions for disposal

- 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.

14. TRANSPORT INFORMATION

A. UN No. (IMDG)

- Not available

B. Proper shipping name

- Not available

C. Hazard Class

- Not available

D. IMDG Packing group

- Not available

E. Marine pollutant

- Not available

F. Special precautions for user related to transport or transportation measures

- 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.
- EmS FIRE SCHEDULE : Not available
- EmS SPILLAGE SCHEDULE : Not available

15. REGULATORY INFORMATION**A. National and/or international regulatory information**

- **POPs Management Law**
 - Not applicable
- **Information of EU Classification**
 - * **Classification**
 - [4-Methyl-1,3-dioxolan-2-one] : Xi; R36
 - * **Risk Phrases**
 - [4-Methyl-1,3-dioxolan-2-one] : R36
 - * **Safety Phrase**
 - [4-Methyl-1,3-dioxolan-2-one] : S2
- **U.S. Federal regulations**
 - * **OSHA PROCESS SAFETY (29CFR1910.119)**
 - Not applicable
 - * **CERCLA Section 103 (40CFR302.4)**
 - Not applicable
 - * **EPCRA Section 302 (40CFR355.30)**
 - Not applicable
 - * **EPCRA Section 304 (40CFR355.40)**
 - Not applicable
 - * **EPCRA Section 313 (40CFR372.65)**
 - Not applicable
- **Rotterdam Convention listed ingredients**
 - Not applicable
- **Stockholm Convention listed ingredients**
 - Not applicable
- **Montreal Protocol listed ingredients**
 - Not applicable

16. OTHER INFORMATION**A. Reference**

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.
- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

B. Issue date

- 2014-02-04

C. Revision number and Last date revised

- 2 times, 2015-05-08

D. Other

- This MSDS is prepared according to the Globally Harmonized System (GHS).