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| AA00242-0003654674 | MATERIAL SAFETY DATA SHEET | Date of Issue | 20230711 |
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1. CHEMICAL PRODUCT INFORMATION

| | | | |
|--------------|--|---------------|-------------------|
| Product Name | COILX5000 PCCL-0083-OW RMP SUEDE(BIG,5%) CLEAR | Color | * |
| Application | 건재 Print Wrinkle Clear 8. Coatings and paints, thinners, paints removers 8.1 Oil paint | | |
| Manufacture | SAMHWA PAINTS IND.CO.,LTD. | Telephone NO. | 82-31- 499 - 0394 |
| Address | 178, Byeolmang-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Korea | Department | |

2. HAZARDS IDENTIFICATION

1. Classification of the substance

- ① FLAMMABLE LIQUIDS - category 3
- ② SKIN CORROSION/IRRITATION - category 2(Skin irritant)
- ③ CARCINOGENICITY - category 1B
- ④ GERM CELL MUTAGENICITY - category 1B
- ⑤ ASPIRATION HAZARD - category 1
- ⑥ ACUTE TOXICITY (ORAL) - category 2
- ⑦ ACUTE TOXICITY (INHALATION-VAPOR) - category 3
- ⑧ HAZARDOUS TO THE AQUATIC ENVIRONMENT(CHRONIC HAZARD) - chronic 3

2. GHS warning label elements, including precautionary statements

① Symbol :



② Signal word : Danger

③ Hazard statements : Toxic if inhaled

Causes skin irritation

May cause cancer(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

Flammable liquid and vapor

May be fatal if swallowed and enters airways

Harmful to aquatic life with long lasting effects

Fatal if swallowed

May cause hereditary defects(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

④ Precautionary statements :

Prevention- Wash...thoroughly after handling.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Use explosion-proof[electrical/ventilating/lighting]equipment.

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

Obtain special instructions before use.

Use only outdoors or in a wellventilated area.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed.

Ground and bond container and receiving equipment

Use non-sparking tools.

Take precautionary measures against static discharge.

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

Avoid release to the environment.

Response- Do NOT induce vomiting.

Call a POISON CENTER or doctor/physician.

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④ Precautionary statements :

- Response- Take off contaminated clothing and wash it before reuse.
 IF exposed or concerned: Get medical advice/attention.
 If skin irritation occurs: Get medical advice/attention.
 Specific treatment (see on this label).
 IF ON SKIN(or hair) : Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].
 IF ON SKIN : Wash with plenty of water/...
 Rinse mouth.
 IF INHALED : Remove person to fresh air and keep comfortable for breathing.
 In case of fire: Use Suitable extinguishing media for extinction.(Refer Section MSDS 5)
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Storage- Store in a well-ventilated place. KEEP cool.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
- Disposal- Dispose of contents/container to relate laws and regulations.

3.CHEMICAL COMPOSITION

| Chemical Name | CAS NO. | Portion(%) | Remarks |
|--|------------|---------------------------------|---------|
| n-Butyl alcohol | 71-36-3 | More than 1 ~ Under 10 % | |
| Soybean oil polymer with adipic acid, glycerol, neopentyl glycol, phthalic anhydride, sunflower oil and trimethylolpropane | 70900-08-2 | More than 31 ~ Under 40 % | |
| Methylated 1,3,5-triazine-2,4,6-triamine, formaldehyde polymer | 68002-20-0 | More than 1 ~ Under 10 % | |
| Methanol | 67-56-1 | More than 0.1 ~ Under 1 % | |
| Solvent naphtha (petroleum), light arom. | 64742-95-6 | More than 11 ~ Under 20 % | |
| Isophthalic acid polyester with adipic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,2-propanediol | 28430-17-3 | More than 21 ~ Under 30 % | |
| Triethylamine | 121-44-8 | More than 0.1 ~ Under 1 % | |
| Diethylene glycol monobutyl ether | 112-34-5 | More than 1 ~ Under 10 % | |
| Pentanedioic acid, dimethyl ester | 1119-40-0 | More than 1 ~ Under 10 % | |

4.HEALTH HAZARD INFORMATION

- Eye contact
 Wash off immediately with plenty of water, also under the eyelids, for at least 20 minutes.
 Call a physician immediately.
- Skin contact
 Remove the contaminated clothes and the skin will be washed with water and soap.
 Do not use solvents.
- Inhalation
 Move to fresh air and if he/she not breathes perform artificial respiration.

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4.HEALTH HAZARD INFORMATION

Consult a physician if necessary.

4. Ingestion

Do not induce vomiting unless it is indicated by medical personnel.

Never give anything by oral tract to an unconscious. Get medical attention if symptoms appear.

5. Note to physician

Very small quantities of the product reached in lungs may be fatale. Ingestion of the product may cause chemical irritation that may diffuse to lungs and cause edema. Check carefully the victim and apply intubations in all ingestion cases for all important amounts.

5.FIRE FIGHTING MEASURES

1. Flash point :55 °C

2. Ignition temp : Not determined

3. Upper expolosion limit / Lower explosion limit : Not determined

4. The Fire Service Act : Fourth grade 2nd.Petroleum

5. Fire extinguisher : CO2, Powder, Halogen Fire extinguisher and Sand etc.

6. Fire and explosion Method of extinguishing and equipment:

Wear suitable protective equipment Use product with caution around heat, sparks, pilot lights, static electricity, and open flame.

Due to vapor is heavier than air, keep the distance from the ignition source pour into the fresh air.

Remove promptly flammable material. Put out a fire at once with prepared fire extinguisher.

7. Hazardous materials in combustion:

Could be generated complexed mixture like solid and gas containing CO, SO2 etc.

Unidentified organic and inorganic compound.

8. Extinguishing method which must not used for safety : Not applicable

6.ACCIDENTAL RELEASE MEASURES

1. Personal precautions

Evacuate useless personnel, isolate the heat and flame sources, ventilate and wet the area if is possible.

All personnel must be protected against vapours inhalation and against skin and eyes contact.

2. Methods for cleaning up

Absorb with dry earth, sand or other non-combustible material and precede according decontamination regulation.

Recovered product will be stored in metallic drums with removable lid or metallic containers, which will be sent to incineration.

3. Environmental precautions

Do not let the product to reach water, drain and earth. Prevent the extending in soil.

Prevent entry into sewers, basements or confined areas; dike if needed

7.HANDLING AND STORAGE

1. Handling

Avoid contact with skin or eyes. Use only up well-ventilated areas.

Avoid breathing vapor. Do not take internally. Take precautionary measures against static is charges.

2. Storage

The product must be kept in original container tightly closed. Store between 5~35°C in dry, well-ventilated place away from source of heat, ignition and direct sunlight.

Solvent vapours are heavier than air and spread along floors. Vapours may form explosive mixtures. No smoking.

3. Other precautions

Emergency showers and eye wash stations should be readily accessible.

Adhere to work practice rules established by government regulations

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8.EXPOSURE CONTROLS/PERSONAL PROTECTION

1. Exposure limit values

| Chemical Name | Cas No | Interior provision | ACGIH |
|--|------------|---|-------------|
| n-Butyl alcohol | 71-36-3 | TWA : 20ppm | TWA 20 ppm |
| Soybean oil polymer with adipic acid, glycerol, neopentyl glycol, phthalic anhydride, sunflower oil and trimethylolpropane | 70900-08-2 | No data | No data |
| Methylated 1,3,5-triazine-2,4,6-triamine, formaldehyde polymer | 68002-20-0 | No data | No data |
| Methanol | 67-56-1 | TWA : 200 ppm 260 mg/m ³ STEL : 250 ppm 310 mg/m ³ | TWA 200 ppm |
| Solvent naphtha (petroleum), light arom. | 64742-95-6 | No data | No data |
| Isophthalic acid polyester with adipic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,2-propanediol | 28430-17-3 | No data | No data |
| Triethylamine | 121-44-8 | TWA : 2 ppm 8.3 mg/m ³ STEL : 4 ppm 16.6 mg/m ³ | TWA 1 ppm |
| Diethylene glycol monobutyl ether | 112-34-5 | TWA : 10ppm | TWA : 10ppm |
| Pentanedioic acid, dimethyl ester | 1119-40-0 | No data | No data |

2. Environmental exposure control

Technical conditions regarding atmosphere protection. Determination of pollutants emission produced by stationary sources rules.

3. Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

4. Eye protection: Wear eye/face protection such as chemical goggles or face shield

5. Hand protection: For prolonged or repeated contact use solvent protective gloves. Barrier reams may help to protect the exposed areas of hand. However they should not be applied once exposure has occurred. Hand should be washed after contact

6. Skin protection: Personnel should wear protective clothing and antistatic footwear.

7. Additional: Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water

9.PHYSICAL AND CHEMICAL PROPERTIES

1. Appearance : colored and transparent liquid

2. Odor : solvent specific

3. pH : Not applicable

4. Solubility : Water-insoluble

5. Boiling point : No data

6. Melting point : No data

7. Explosive properties : No data

8. Oxidising properties : No data

9. Vapor pressure :No data

10. Specifice gravity : 1.06

11. Partition coefficient : No data

12. Vapor density : No data

13. Viscosity(25°C) : 85(-10,+10)SEC

14. Molecular weight : No data

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10. STABILITY AND REACTIVITY

- Chemical stability
The product is stable if is kept in original recipient and according with recommendation.
- Condition to avoid
Avoid all possible sources of heat, electrostatic discharges, ignition(spark or flame).
Avoid storage at temperature higher than 35°C and direct exposure in the sunlight.
- Materials to avoid
Strong oxidative substances, strong acid, and alkaline solutions may give exothermic reactions in contact with this product.
- Hazardous decomposition products
Thermo oxidative decomposition gives carbon monoxide, carbon dioxide, nitrogen oxides and a dense smoke, which contain other unidentified decomposition products. If this product is heated up to its decomposition temperature may lead to explosion.

11. TOXICOLOGICAL INFORMATION

1. Toxicity Information

| Chemical Name | LD50.Oral | LD50.Skin | LD50.Inhalation (gas) | LD50.Inhalation (vapour) | LD50.Inhalation (mist) |
|--|-----------------------|--------------------------|--------------------------|----------------------------|--------------------------|
| n-Butyl alcohol | LD50 = 2292 mg/kg Rat | LD50 = 3430 mg/kg rabbit | NO DATA | LC50 = 8000 ppm 4 hr Rat | NO DATA |
| Soybean oil polymer with adipic acid, glycerol, neopentyl glycol, phthalic anhydride, sunflower oil and trimethylolpropane | No data | No data | No data | No data | No data |
| Methylated 1,3,5-triazine-2,4,6-triamine, formaldehyde polymer | LD50 12.3 mL/kg Rat | No data | No data | No data | No data |
| Methanol | LD50 6200 mg/kg Rat | LD50 15800 mg/kg rabbit | 해당없음 | LC50 64000 ppm 4 hr Rat | 해당없음 |
| Solvent naphtha (petroleum), light arom. | LD50 = 8400 mg/kg Rat | LD50 > 2000 mg/kg Rabbit | NO DATA | LC50 = 5.160 mg/ℓ 4 hr Rat | NO DATA |
| Isophthalic acid polyester with adipic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,2-propanediol | No data | No data | No data | No data | No data |
| Triethylamine | LD50 = 460 mg/kg Rat | LD50 = 420 mg/kg Rabbit | LC50 = 1250 ppm 4 hr Rat | LC50 = 4.2 mg/ℓ 4 hr Rat | LC50 = 1250 ppm 4 hr Rat |
| Diethylene glycol monobutyl ether | LD50 = 5660 mg/kg Rat | LD50 = 2700 mg/kg Rabbit | No data | No data | No data |
| Pentanedioic acid, dimethyl ester | LD50 = 1920 mg/kg Rat | LD50 = 8500 mg/kg Rat | 해당없음 | 자료없음 | 해당없음 |

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12.ECOLOGICAL INFORMATION

1. Ecological Information

| Chemical Name | LC50.fish | LC50.water fleas | LC50.algae |
|--|--------------------------------------|--|--------------------------|
| n-Butyl alcohol | LC50 = 1376 mg/ℓ 96 hr Pimephales | EC50 = 1983 mg/ℓ 48 hr Daphnia magna | EC50 = 225 mg/ℓ 96 hr |
| Soybean oil polymer with adipic acid, glycerol, neopentyl glycol, phthalic anhydride, sunflower oil and trimethylolpropane | No data | No data | No data |
| Methylated 1,3,5-triazine-2,4,6-triamine, formaldehyde polymer | No data | No data | No data |
| Methanol | LC50 15400 mg/ℓ 96 hr Lepomis | LD50 > 100 mg/ℓ 96 hr Daphnia magna | No data |
| Solvent naphtha (petroleum), light arom. | LC50 = 9.22 mg/ℓ 96 hr | EC50 = 6.14 mg/ℓ 48 hr Daphnia magna | EC50 = 19 mg/ℓ 72 hr |
| Isophthalic acid polyester with adipic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,2-propanediol | No data | No data | No data |
| Triethylamine | No data | No data | EC50 = 8 mg/ℓ 72 hr |
| Diethylene glycol monobutyl ether | LC50 = 1300 mg/ℓ 96 hr | No data | No data |
| Pentanedioic acid, dimethyl ester | LC50 = 13400 mg/ ℓ 96 hr | EC50 = 3940 ~ 4670 mg/ℓ 48 hr Daphnia | No data |

2. Soil mobility : Not known

3. Persistence and degradability

There is no specific data available on the product itself. The product should not be allowed to enter drains or watercourses or be deposited where they can affect ground or surface waters.

4. Potential bioaccumulation : Be possible.

13.DISPOSAL CONSIDERATION

1. Relevant insurance of legislation

Dispose of in accordance with local regulations

2. Waste removal measures

Waste must be disposed of in accordance with state and local environmental regulations.

3. Direction for the waste disposal

Preferred options for disposal are recycling, incineration with energy recovery, and landfill.

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14. TRANSPORT INFORMATION

1. Classification by shipping transportation dangerous substance and regulation of storage :
2. Direction for transport
The product must be kept in original container tightly closed and transport at normal temperature.
3. International Maritime Dangerous Goods Code
U.N Number : 1263
Shipping name : PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquerbase) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)

Hazard class : 3
Packing group : 3
4. Marine pollutant : Not Applicable
5. Special precautions for user related to transport or transportation measures
 - Ems FIRE SCHEDULE : F-E
 - EmS SPILLAGE SCHEDULE : S-E

15. REGULATORY INFORMATION

1. Article of KOREA OCCUPATIONAL SAFETY _HEALTHY AGENCY : Not determined. Water-insoluble
2. Article of Harmful Chemical Substance : Triethylamine, Methanol
3. Classify of The Fire Service Act : Fourth grade 2nd. Petroleum

16. OTHER INFORMATION

The information provided in this Material 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 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.

This information is based on technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.