1.CHEMICAL PRODUCT INFORMATION

Product Name	ILUX ALLCOATING GLOSS	Color	
Application	concrete,mortar,steel, cement	8. Coatings and paints, thinners, paints removers 8.2 Water paint	
Manufacture	SP SAMHWA 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 No Classification

2.GHS warning label elements, including precautionary statements

① Symbol : Not Applicable

② Signal word : No Data

3.CHEMICAL COMPOSITION

Chemical Name	CAS NO.	Portion(%)	Remarks
Water	7732-18-5	More than 50 ~ Under 60 %	
2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile	26299-47-8	More than 10 ~ Under 20 %	
Titanium dioxide	13463-67-7	More than 10 ~ Under 20 %	
Sodium nitrite	7632-00-0	More than 0.1 ~ Under 1 %	
Propylene glycol	57-55-6	More than 1 ~ Under 10 %	
Hexanedioic acid bis(2-methylpropyl) ester; Diisobutyl adipate	141-04-8	More than 1 ~ Under 10 %	

4.HEALTH HAZARD INFORMATION

1. Eye contact

Wash off immediately with plenty of water, also under the eyelids, for at least 20 minutes.

Call a physician immediately.

2. Skin contact

Remove the contaminated clothes and the skin will be washed with water and soap.

Do not use solvents.

3. Inhalation

Move to fresh air and if he/she not breathes perform artificial respiration.

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 : No Data/Not applicable
2. Ignition temp : Not determined
3. Upper expolosion limit / Lower explosion limit : Not determined
4. The Fire Service Act : Not applicable
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
   Wear protective gear before handling.
   Avoid contact with skin or eyes.
   Avoid breathing vapor or dust.
   Use only up well-ventilated areas.
   Take precautionary measures against static charges, fire, sources, heat generation and spark.
   Becareful physical shock and pressure.

2. Storage
   The product must be kept in original container tightly closed.

7.HANDLING AND STORAGE

Store between 5~35℃ in dry.
Well-ventilated place away from source of heat, ignition and direct sunlight.
Vapors may form explosive mixtures.
Adhere to work practice rules established by government regulations.

3. Other precautions
Emergency showers and eye wash stations should be readily accessible.
Adhere to work practice rules established by government regulations

8.EXPOSURE CONTROLS/PERSONAL PROTECTION

1. Exposure limit values

Chemical Name	Cas No	Interior provision	ACGHI
Water	7732-18-5	No data	No data
Sodium nitrite	7632-00-0	No data	No data
Propylene glycol	57-55-6	No data	No data
2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile	26299-47-8	No data	No data
Hexanedioic acid bis(2-methylpropyl) ester; Diisobutyl adipate	141-04-8	No data	No data
Titanium dioxide	13463-67-7	TWA : 10 mg/㎥	TWA 10 mg/m3

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 protec 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 opaque liquid
2. Odor : odorless
3. pH : Not applicable
4. Solubility : Water-soluble
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. Specific Gravity : 1.22
11. Partition coefficient : No data
12. Vapor density : No data
13. Viscosity(25℃) : 95~100 KU
14. Molecular weight : No data

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10.STABLITY AND REACTIVITY

1. Chemical stability
   The product is stable if is kept in original recipient and according with recommendation.
2. Condition to avoid
   Avoid all possible sources of heat, electrostatic discharges, ignition(spark or flame).
   Avoid storage at temperature higher than 35℃ and direct exposure in the sunlight.
3. Materials to avoid
   Strong oxidative substances, strong acid, and alkaline solutions may give exothermic reactions in contact with this product.
4. 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.

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11.TOXICOLOGICAL INFORMATION

1. Toxicity Information

Chemical Name	LD50.Oral	LD50.Skin	LD50.Inhlation (gas)	LD50.Inhlation (vapour)	LD50.Inhlation (mist)
Water	LD50 90000 mg/kg Rat	No data	No data	No data	No data
Titanium dioxide	LD50 >2000 mg/kg Rat	No data	No data	No data	LC50 > 6.82 mg/ℓ 4 hr Rat
2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile	No data	No data	No data	No data	No data
Hexanedioic acid bis(2-methylpropyl) ester; Diisobutyl adipate	No data	No data	No data	No data	No data
Propylene glycol	LD50 = 2000 mg/kg Rat	LD50 > 16000 mg/kg Rabbit	No data	No data	No data
Sodium nitrite	LD50 = 1500 mg/kg Rat	No data	LC50 = 5.5 mg/ℓ 4 hr Rat	LC50 = 5.5 mg/ℓ 4 hr Rat	LC50 = 5.5 mg/ℓ 4 hr Rat

12.ECOLOGICAL INFORMATION

1. Ecological Information

Chemical Name	LC50.fish	LC50.water fleas	LC50.algea
Water	No data	No data	No data
Titanium dioxide	LC50 > 100 mg/ℓ 96 hr Carassius	LC50 > 500 mg/ℓ 48 hr Daphnia magna	EC50 > 50 mg/ℓ 72 hr
2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile	No data	No data	No data
Hexanedioic acid bis(2-methylpropyl) ester; Diisobutyl adipate	No data	No data	No data
Propylene glycol	LC50 = 710 mg/ℓ 96 hr	EC50 > 1000 mg/ℓ 48 hr Daphnia magna	EC50 > 1000 mg/ℓ 72 hr
Sodium nitrite	LC50 = 0.36 mg/ℓ 96 hr	EC50 = 18.11 mg/ℓ 48 hr	EC50 = 159 mg/ℓ 72 hr

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.

14.TRANSPORT INFORMATION

1. Classification by shipping transportaiton 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 Martitie Dangerous Goods Code
   U.N Number : Not Applicable
   Shipping name : Not Applicable

   Hazard class : Not Applicable
   Packing group : Not Applicable
4. Marine pollutant : Not Applicable
5. Special precautions for user related to transport or transportation measures
   - Ems FIRE SCHEDULE : Not Applicable
   - EmS SPILLAGE SCHEDULE : Not Applicable
   - Air transport(IATA) : Not Applicable

15.REGULATORY INFORMATION

1. Article of KOREA OCCUPATIONAL SAFETY _HEALTY AGENCY : Not determined. Water-soluble
2. Article of Harmful Chemical Substance :
3. Classify of The Fire Service Act : Not applicable

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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 data 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.