

SAFETY DATA SHEET

Reference number : NIS-SP001-0005

1. IDENTIFICATION

Product name : ZINC SPRAY PRO SILVER
Kinds of product : Epoxy resin-based zinc-rich paint (AEROSOL SPRAY PAINT)
Manufacturer :
Company name : SUNDAY PAINT Co., Ltd
Address : 6F SR Building NAGAHORI 1-18-11, MINAMISEMBA, CHUO-KU, OSAKA 542-0081 Japan
Charge section : Mayor of customer service
Phone number : +81-6-6266-3150
Fax number : +81-6-6266-3146
Emergency telephone number : +81-6-6266-3150
Product use : Mainly for outdoor and indoor metal products
Date of issue : January 7, 2015
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2. HAZARDS IDENTIFICATION

GHS classification

Physicochemical Hazards

Explosives : Not classified
Flammable gases : Not applicable
Aerosols : Category 2
Oxidizing gases : Not applicable
Gases under pressure : Not applicable
Flammable liquids : Category 1
Flammable solids : Not applicable
Self-reactive substances and mixtures : Classification not possible
Prophetic liquids : Not classified
Prophetic solids : Not applicable
Self-heating substances and mixtures : Not classified
Substances and mixtures which, in contact with water, emit flammable gases : Not classified
Oxidizing liquids : Not classified
Oxidizing solids : Not applicable
Organic peroxides : Classification not possible
Corrosive to metals : Classification not possible

Health hazards

Acute toxicity - oral : Not classified
Acute toxicity - dermal : Not classified
Acute toxicity - inhalation / gas : Not applicable
Acute toxicity-inhalation/vapour : Not classified
Acute toxicity-inhalation/dusts and mists : Not classified
Skin corrosion / irritation : Category 2
Serious eye damage /irritation : Category 2
Respiratory sensitization : Not classified
Skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Category 2
Reproductive toxicity : Category 1 + Effect on lactation
Specific target organ systemic toxicity (single exposure) : Category 1
(Liver, Respiratory organs, kidney, Central nervous system)
Central nervous system)
Specific target organ systemic toxicity (repeated exposure) : Category 1
(Respiratory organs, Nervous system, kidney,
Central nervous system)

Category 2
(Liver, blood vessel, Pancreas, Spermmary)

Aspiration toxicity : Not classified

Environmental hazard

Hazardous to the aquatic environment (acute toxicity) : Category 2

Hazardous to the aquatic environment chronic hazard : Category 3

GHS label elements

Pictogram or symbol



Signal word

Danger

Hazard statement

- The combustibility and flammable aerosol.
 - Pressurized container: may burst if heated.
 - Highly flammable liquid and vapour.
 - Generates flammable / flammable gas when in contact with water.
 - May be harmful if swallowed.
 - Harmful if inhaled.
 - Causes skin irritation.
 - Causes serious eye irritation.
 - May cause genetic defects.
 - Suspected of causing cancer.
 - May damage fertility or the unborn child.
 - Causes damage to organs Liver, Respiratory organs, kidney, Central nervous systemCentral nervous system.
 - Causes damage to organs Respiratory organs, Nervous system, kidney,Central nervous system through prolonged or repeated exposure.
 - Toxic to aquatic life.
 - Harmful to aquatic life with long lasting effects.
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Precautionary statements

Prevention

- Keep away from heat/sparks/open flames/hotsurfaces. - No smoking.
 - Use explosion-proof electrical/ventilating/lighting Equipment.
 - Use only non-sparking tools.
 - Take precautionary measures against static discharge.
 - Wear protection gloves, protection glasses, protection side, protection clothes.
 - Wash thoroughly after handling
 - Wear protective gloves as specified by the manufacturer/supplier or the competent authority.
 - Obtain special instructions before use.
 - Do not handle until all safety precautions have been read and understood.
 - Do not breathe dust/fume/gas/mist/vapours/spray.
 - Wash hands thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Keep container tightly closed.
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First aid measures

- If on skin (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- In case of fire, use Carbon dioxide gas,foam, dry powder.
- If on skin: Gently wash with plenty of soap and water.
- If skin irritation occurs, seek medical advice/attention.
- Take of contaminated clothing and wash before re-use.
- If exposing it: Contact the doctor.
- IF exposed: Call a POISON CENTER or doctor/physician.
- Get medical attention/advice if you feel unwell.
- Call a poison center/doctor/physician if you feel unwell.
- If swallowed, contact a physician immediately.
- If swallowed, rinse out. Do not force vomiting.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

- If eye irritation persists, get medical advice/attention.
- Collect spillage.

Storage

- Store in cool/well-ventilated place.
 - Store locked up.
 - Store container tightly closed in well-ventilated place - if product is as volatile as to generate hazardous
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Disposal

- Dispose of contents/container to accordance with local/regional/national/international regulation.
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3. COMPOSITION / INFORMATION ON INGREDIENTS

Classification of the substance or mixture	: A mixture.
Chemical or generic name	: No information.
Chemical characteristic (chemical formulas)	: No information.
Poisonous and Deleterious Substances Control Act	: No correspond.
Ingredient	:

Ingredient name	CAS no	Content (%)	Industrial Safety and Health Act	Poisonous and Deleterious Substances Control Act	Pollutant Release and Transfer Register Law (PRTR)
zinc	7440-66-6	30.0~40.0	—	—	—
toluene	108-88-3	14.9	○	—	CLASS-1-300
xylene mixed isomers pure	1330-20-7	6.3	○	—	CLASS-1- 80
ethylbenzene	100-41-4	1.2	○	—	CLASS-1- 53
Naphtha (petroleum), hydrodesulfurized	64742-82-1	1.0~10.0	—	—	—
Light aromatic solvent naphtha	64742-95-6	1.0~10.0	○	—	—
dimethyl ether	115-10-6	30.0~40.0	—	—	—

4. FIRST AID MEASURES

Inhalation

- If inhaled vapour or gases and felt unwell, remove to fresh air and keep at rest in a position comfortable for breathing. And call a doctor /physician if feels unwell.
 - If inhaled vapour or gases in large quantities, remove to fresh air and rest with keeping warm. And if breathing gets irregular or stops, perform artificial respiration. And do not let swallow vomit. Consult a doctor/ physician immediately.
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Skin contact

- Wipe off clinging substance with clean cloth quickly.
 - Wash off thoroughly with plenty of water and soap. Do not use solvent or paint thinner.
 - If any change of appearance is seen, or pain persists and feels unwell, consult a doctor/physician.
 - Take off all contaminated clothing. Immediately.
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Eye contact

- Wash off with plenty of clean water immediately for 15minutes or more. And remove contact lens ,if presence and easy. And completely wash it including the underside of eyelid.
 - Consult a physician as soon as possible.
 - Call a POISON CENTER or doctor/physician immediately.
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Ingestion

- If swallowed accidentally, rest and consult a doctor/physician immediately.
 - Do not let swallow vomit.
 - Avoid forcing to vomit without physician's instruction.
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The protection of the person taking first aid measure

- Wear proper protectors (safety goggles, respirator, gloves,etc.)
 - Ventilate
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5. FIRE-FIGHTING MEASURES

Extinguishing media	: Carbon dioxide gas,foam, dry powder
Must not use extinguishing media	: Water (stick water, high pressure water jet)
Special fire extinguishing method(Protection of fire-fighting person)	
■ Wear proper protectors (heat-resistant clothes,etc.)	
■ Remove flammable matters immediately.	

- Use designated extinguishant.
- If sealed container is exposed to high temperature, water to cool.
- Fire-Fight from windward.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Wear proper protectors (safety goggles, respirator, gloves, apron, etc.)
- Declare off-limits of the outskirts and I do not bring it close anyone other than the person concerned and prevent a second disaster.
- Remove ignition source, heat source and flammable matters immediately.
- Prepare proper extinguisher for accidental fire.

Environmental precautions

- Take cautions not to cause influence on environment by discharge to river.

Methods and materials for containment and cleaning up

- Dispose of waste or clinging matter according to related regulation.
- Recollect leakage in the container can be sealed and keep in safety place.
- Recollect with tool of non-spark material.
- Recollect with dry sand, soil, or other nonflammable matter. If in large quantity, prevent from flowing out by banking.

7. HANDLING AND STORAGE

Handling

Handling technical measures

- Handle in good ventilated area.
- Close container tightly with closer after use.
- Take away from open flame, spark, heat-source.
- Use a non-spark type hand tool.
- While working, wear antistatic working suits and shoes.
- Wear proper protectors to prevent from contact on skin, mucous membrane, wearing clothes and eyes.
- Wash hands and face well after handling, and avoid to bring polluted protectors in any place where person stays.
- In closed place, ensure good local exhaust ventilation and wear proper protectors.

Handling instructions

- As a measure against static electricity accident, ground equipment and use electric appliances of explosion proof type.
- A material product that contains Class 2 Organic Solvents on exceeding 5% is obligated to be stored in a closed equipment or in local exhaust ventilation equipment.

Storage

Storage, technical measures

- Avoid a direct sunlight.
- Keep in good ventilated place.
- Keep away from open flame and heat source.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Taking measures for equipments:

- Use explosion proof type equipment.
- Install ventilation equipment to prevent concentrating of vapour.
- Ground equipment for transferring, pumping and stirring of fluid.
- the devices such as the churning.
- Provide equipment devised so that heat or ignition source can not be placed in the neighborhood of handling place.
- In door application, use either not to expose the operator directly, such as using automatic painting machines, or that keeps the operator from exposure, such as local exhaust ventilation equipment.
- In application in closed space such as inside of tank, install equipment that can ventilate completely even its bottom.
- Consider so that the operator can not touch or expose to corrosive substance directly.

Management density / permission density

Chemical substance name	Exposure limits-ppm	Exposure limits-mg/m ³	skin
toluene	20	—	—
xylene mixed isomers pure	50	—	—
ethylbenzene	20	—	—
Chemical substance name	Japan Society for Occupational Health (JSOH) - ppm	Japan Society for Occupational Health (JSOH) -mg/m ³	skin
xylene mixed isomers pure	50	—	—

ethylbenzene	50	217	—
Chemical substance name	ACGIH_TWA - ppm	ACGIH_TWA -mg/m3	skin
toluene	50	180	○
xylene mixed isomers pure	100	434	—
ethylbenzene	20	—	—

Chemical substance name	IARC
toluene	3
xylene mixed isomers pure	3
ethylbenzene	2B

Tool for protection

Respiratory protective equipment

- Wear a gas mask for organic gases.
- Wear a mask with supplying air in closed place.

Hand protective equipment

- Wear the glove that organic solvents or chemicals can not permeate through.

Eyes protective equipment

- Wear protective eyeglasses or goggles.

Skin and body protective equipment

- Wear suitable clothing that should be impervious to chemicals and to avoid direct contact of skin in handling.

Other information

- Wear electricity shoes on electrostatic painting.

9. PHYSICAL AND CHEMICAL PROPERTIES

	[Propellant]	[Paint]
Appearance		
Physical state	: Gas	Liquid
Color	: No information.	Silver
Odor	: No information.	Solvents Smell
Ph	: No information.	No information.
Melting point/freezing point	: No information.	No information.
Initial boiling point and boiling	: -24.8 °C	110.6 °C
Flash point	: -41.4 °C	11 °C
Auto-ignition temperature(ignition point)	: 350 °C	480 °C
Flammability (solid, gas)	: No information.	No information.
Upper/lower flammability or explosive limits	: 27.0/3.4 vol %	7 / 1.27 vol %
Vapor pressure(°C)	: 257230 (0)	4893 (Pa(20)
Vapor density	: No information.	No information.
Evaporation rate	: No information.	No information.
Specific gravity (relative density)	: 0.67	No information.
Solubility		
Solubility for the water	: No information.	
Dissolubility for the water	: No information.	
Solubility for the solvent	: No information.	
Dissolubility for the solvent	: No information.	
Partition coefficient:n-octanol/water	: No information.	
Decomposition temperature	: No information.	

10. STABILITY AND REACTIVITY

Conditions to avoid

- Avoid high temperature.
- Avoid an impact. / Avoid a vibration.

Hazardous decomposition products

- Hazardous gases such as low molecular weight monomers are emitted.
- Hazardous gases such as carbon monoxide are emitted.

Other information on hazardousness

- Inside pressure of a container is 4.5kg/cm³ (20°C)
- High-pressure gas , and an inflammability

- Anesthetic (very weak)
- As touch the liquefied gas, there is a possibility of inflammation or frostbite.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

toluene	: LD50(oral)	—	=5000mg/kg(4h)
	: LD50(dermal)	—	12000mg/kg(4h)
	: LC50(vapour)	—	7460ppm(4h)
	: LC50(dust/mist)	—	—
xylene mixed isomers pure	: LD50(oral)	—	4300mg/kg(4h)
	: LD50(dermal)	—	>4350mg/kg(4h)
	: LC50(vapour)	—	6700ppm(4h)
	: LC50(dust/mist)	—	—
ethylbenzene	: LD50(oral)	—	3500mg/kg (4h)
	: LD50(dermal)	—	15400mg/kg (4h)
	: LC50(vapour)	—	4000ppm (4h)
	: LC50(dust/mist)	—	—
Light aromatic solvent naphtha	: LD50(oral)	rat	8400mg/kg(4h)
	: LD50(dermal)	—	—
	: LC50(vapour)	—	—
	: LC50(dust/mist)	—	—

Skin corrosion/irritation

toluene	: Category 2
xylene mixed isomers pure	: Category 2
ethylbenzene	: Category 3

Serious eye damage /irritation

zinc	: Category 2B
toluene	: Category 2B
xylene mixed isomers pure	: Category 2A
ethylbenzene	: Category 2B

Carcinogenicity

ethylbenzene	: Category 2
Naphtha (petroleum), hydrodesulfurised	: Category 1B

Teratogenicity

toluene	: Category 1A+ Effect on lactation
xylene mixed isomers pure	: Category 1B

Specific target organ / systemic toxicity - single exposure

toluene	: Category 1 (Central nervous system)
	: Category 3 (Respiratory tract irritation, Narcotic effects)
xylene mixed isomers pure	: Category 1 (Liver, Respiratory organs, Kidney, Central nervous system)
	: Category 3 (Narcotic effects)
ethylbenzene	: Category 2 (Central nervous system)
	: Category 3 (Respiratory tract irritation)

Specific target organ / systemic toxicity - repeated exposure

toluene	: Category 1 (Kidney, Central nervous system)
xylene mixed isomers pure	: Category 1 (Respiratory organs, Nervous system)

Aspiration hazard

toluene	: Category 1
xylene mixed isomers pure	: Category 2
ethylbenzene	: Category 1

12. ECOLOGICAL INFORMATION

- Take care for spills or waste in handling because of its environmental impact. Especially take care for product or rinsing water not to flow into ground, river and drain directly.

Hazardous to the aquatic environment - Acute hazard

zinc	: Category 1
toluene	: Category 2
xylene mixed isomers pure	: Category 2

ethylbenzene : Category 1

Hazardous to the aquatic environment - Chronic hazard

zinc : Category 1

toluene : Category 3

xylene mixed isomers pure : Category 2

13. DISPOSAL CONSIDERATIONS

Residual waste

- Let authorized industrial waste disposing agent to dispose of abolished paint, containers and others under agreement. Dispose of abolished paint, materials and waste from incineration in accordance with regulation or laws of "Specified Hazardous Industrial Wastes" of Special Controlled Industrial Waste.
 - Must not dispose of waste water from washing container, machinery and etc. into the ground or drain without treatment.
 - Dispose of waste from waste water treatment, incineration and etc. in accordance with regulation or laws relating to disposal and cleaning of waste, or let special disposing agent to dispose.
 - Incinerate abolished paint absorbed to diatomaceous earth by small quantity in the open-type incinerator. Or incinerate them by spraying in the fire box. If it is apprehended that hazardous gases such as dioxins are generated, let authorized industrial waste disposing agent to dispose under agreement."
 - Let authorized industrial waste disposing agent to dispose of abolished paint and materials under agreement, because there are specified as Special Controlled Industrial waste (waste oil).
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Pollution container and packing:

- Let authorized industrial waste disposing agent to dispose of them under agreement.
 - Dispose of used container after removing contents completely.
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14. TRANSPORT INFORMATION

- After confirming the state of container had no leakage, and load to prevent collapsing, fall and damage.
- Obey the description of "Handling and Storage"

UN number : 1950

Land transportation

- If falling under "Fire Service Act", "Industrial Safety and Health Act" or "Poisonous and Deleterious Substances Control Act", obey the transport method regulated in each law.
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Marine transportation

- Obey the provisions of "Ship Safety Act"
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Air transport

- Obey the provisions of "Civil Aeronautics Act"
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Indicator number : 126

IMQ class : 2.1 (Inflammable gas)

15. REGULATORY INFORMATION

Fire and Disaster Management Act

- Dangerous Materials Class 4 Group 1 Petroleum, Non-Solution, dangerous grades II.
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Industrial Safety and Health Act

- Table 1-4 by Act of Parliament, Flammable material
 - Article 57-2, notifiable substances
 - Ordinance on Prevention of Organic Solvent Poisoning, Class 2 Organic Solvents
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High pressure gas control law

- Liquefied gas, Flammable gas (except: aerosol)
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Special Management Industrial Waste

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Pollutant Release and Transfer Register

- Class-1
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16. OTHER INFORMATION

Literatures

- "Raw Materials Database" edited by Japan Paint Manufacturers Association
 - Materials Safety Data Sheet Guide (Mixture)" edited by Japan Paint Manufacturers Association
 - "Solvent Pocket Book" Ohmsha, Ltd.
 - The Handbook for Precautions and First Aids to Dangerous Goods.
 - International Chemical Safety Cards.
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Other information

- This SDS is necessary to handle our manufacture property and gathered up the matter which must be paid attention briefly for normal handling.
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- However the content noted above is prepared based on information or data available at yhe present, the evaluation of hazardousness and harmfulness is not adequate necessary, so be careful in handling.
- This SDS may be revised without notice by revising law or new knowledge.
- This SDS is based on the standard of Japan Paint Manufacturers Association with Laws of Japan but not from local government, accord to relevant local laws as required when handling.