Date of first issue : 2011/01/19 Date of Revision : 2014/05/30

SAFETY DATA SHEET

1. IDENTIFICATION

Name of chemical substances: BEAMLITE AEROSOL SPRAY WHITE

Kinds of product: Acrylic resin coating (AEROSOL SPRAY PAINT)

Manufacturer:

Company name: SINLOIHI CO., LTD

Address: 2-19-12 Dai, Kamakura, Kanagawa, 247-8550

Section in charge: Quality Control Section

Phone number: 0467-43-2183 FAX number: 0467-43-1510 Reference number: 2M006-2

Use:

For institutional use For general use

2. HAZARDS IDENTIFICATION

GHS classification:

Physicochemical Hazards:

Explosives :No classification
Flammable gases :Out of classification

Flammable aerosols :Category 2

Oxidizing gases :Out of classification Gases under pressure :Out of classification

Flammable liquids :Category 3

Flammable solids
Self-reactive substances and mixtures
Pyrophoric liquids
Pyrophoric solids
Self-heating substances and mixtures
Substances and mixtures
Substances and mixtures which, i

Out of classification
Out of classification
No classification
No classification

n contact with water, emit flammable gases

Oxidizing liquids
Oxidizing solids
Organic peroxides
Corrosive to metals

No classification
No classification
No classification

Health hazards:

Acute toxicity - oral Out of category Acute toxicity - dermal Out of category Out of classification Acute toxicity-inhalation/gases Acute toxicity-inhalation/vapour Out of category Acute toxicity-inhalation/dustsand mists :Out of category Skin corrosion / irritation :Category 2 Serious eve damage /irritation :Category 2 Respiratory sensitization Out of category Skin sensitization Out of category Germ cell mutagenicity :Category 1 Carcinogenicity :Category 2 :Category 1 Reproductive toxicity Specific target organ systemic t :Category 1

oxicity (single exposure) (Liver, Respiratory organs,

Kidney, Central nervous system)

Specific target organ systemic t

oxicity (repeated exposure) :Category 1

(Respiratory organs, Nervous system)

:Category 2

(Liver, Spermary)

Aspiration toxicity :Category 1

Environmental hazards

Hazardous to the aquatic environ :Category 2

ment (acute toxicity)

Hazardous to the aquatic environ ment (chronic toxicity)

:Category 2

GHS label elements:

Pictogram or symbol:









Signal words:Danger

Hazard statement:

The combustibility and flammable aerosol.

Flammable liquid and vapour.

May cause organic solvent poisoning.

Causes skin irritation.

Causee 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 system.

Causes damage to organsRespiratsure.

May cause damage to organs Liver, Spermarythrough prolonged or repeated exposure.

May be fatal if swallowed and enters airways.

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

Ground/bond container and receiving equipment - if the explosive is electrostatically sen sitive.

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.

Use personal protective equipment as required.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash hands thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

Avoid releasing to the environment - if this is not the intended use.

Keep container tightly closed.

First aid measures:

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin w ith 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 off contaminated clothing and wash before re-use.

If exposing it: Contact the doctor.

If inhaled, move to the place of fresh air and take a rest with the posture easy to breathe.

Seek medical advice in case feeling sick.

Get medical attention/advice if you feel unwell.

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:

Keep container tightly closed.

Store in cool/well-ventilated place.

Store locked up.

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Disposal:

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

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

Component name:

Ingredie	ent name	CAS.No	Content (%	Industrial Safety and Health Act	Poisonous and Dele terious Substances	
					Control Act	ter Law
xylene r	nixed isomers pure	1330-20-7	9.5	\circ	_	PRTR CLASS-1-80
ethylbei	nzene	100-41-4	7.8	\circ	_	PRTR CLASS-1-53
mineral	spirit	8052-41-3	$1.0 \sim 10.0$	\circ	_	
ethanol		64-17-5	$0.1 \sim 1$	\circ	_	
methan	ol	67-56-1	$0.1 \sim 1$	\circ	_	
propane)	74-98-6	$1.0 \sim 10.0$	_	_	
n-butan	e	106-97-8	$10.0 \sim 20.0$	\circ	_	
isobutai	ne	75-28-5	$1.0 \sim 10.0$	\circ	_	
dimethy	ol ether	115-10-6	$10.0 \sim 20.0$	_	_	

4. FIRST AID MEASURES

Inhalation:

If inhaled vapour or gases and felt unwell, remove to fresh air and keep at rest in a positio n comfortable for breathing.

And call a doctor /physician if feels unwell.

Skin contact:

Wipe off clinging substace 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, cosult a doctor/physician.

Take off all contaminated clothing. Immediately.

Eye contact:

Wash off with plenty of clean water immediately for 15minutes or more. And remove contact len s ,if presence and easy to do.

And completely wash it inclouding the underside of eyelid.

Consult a physician as soon as possible.

Call a POISON CENTER or doctor/physician immediately.

Ingestion:

If swallowed accidentally, rest and consult a doctor/physician immediately.

Do not let swallow vomit.

Avoid forcing to vomit without physician's instruction.

The protection of the person taking first aid measure.

Wear proper protectors (safety goggles, respirator, gloves, etc.)

Ventilate

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 do not bring it close anyone other than the person concernant prevent a second disaster.

Remove ignition source, heat source and flammable matters immediately.

Prepare proper extinguisher for accidental fire.

Environmental precautions:

Take causions 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 ϵ 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.

When the jet is continued, inflammation or frostbite might be caused.

A material product that contains Class 2 Organic Solvents on exceeding 5% is obligated to be stored i a closed equipment or in local exhaust ventilation equipment.

Storage:

Strage, technical measures:

Avoid a direct sunlight.

Keep in good ventilated place.

Keep away from open flame and heat source.

Take causions not to keep the place where is with water supply and high humidity, because a container corrodes, and may cause explosion.

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.

Provide equipment devised so that heat or ignition source can not be placed in the neighborho od 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 explosure, such as loacal exhaust ventilation equipment.

In application in closed space such as inside of tank, install equipment that can ventilate c ompletely even its bottom.

Consider so that the operator can not touch or expose to corrosive substance directly.

Management density / permission density:

Chemical substance nameExposure limits ppm		Exposure limits mg	skin
xylene mixed isomers pure	50		
ethylbenzene	20		
methanol	200		

Chemical substance name Japan Soc	ciety for	Japan Society for s	kin
Occupation	nal Healt O	Occupational Healt	

h (JSOH) - mg/m3

xylene mixed isomers pure 50

ethylbenzene 50 217

h (JSOH) - ppm

Chemical substance name ACGIH_TWA ppm		ACGIH_TWA mg/m3	skin
xylene mixed isomers pure	100	434	
n-butane	800		
ethylbenzene	20		
mineral spirit	100		
ethanol	1000	1880	
methanol	200	262	\bigcirc
propane	1000		
Chemical substance name	IARC		
xylene mixed isomers pure	3		
ethylbenzene	2B		

Protective equipment:

Respiratory protective equipment:

Wear a gas mask for poisonous gases.

Wear a mask with supplying air in closed place.

Wear the proper protection mask against the hazardous substance.

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

Appearance:

Physical state:Liquid

Colour:WHITE

Odour: No information pH: No information

Melting point/freezing point:No information

Initial boiling point and boiling range: [Propellant] -42.1 [$^{\circ}$ C] [Paint] $130 \sim 230$ [$^{\circ}$ C] Flash point: [Propellant] -104 [$^{\circ}$ C] [Paint] 27 [$^{\circ}$ C]

Auto-ignition temperature(ignition point): [Propellant] 350[°C] [Paint] 288[°C]

Flammability (solid, gas): No information

Upper/lower flammability or exprosive limits:26.7[vol %] / 0.6[vol %]

Vapor pressure: [Propellant] 1.275[MPa] (40[$^{\circ}$]) [Paint] 1400[Pa] (20[$^{\circ}$])

Vapour density: No information Evaporation rate: No information

Specific gravity (relative density): No information

Solubility:

Solubility in water: No information

Dissolubility in water: No information

Solubility in solvent: No information

Dissolubility in solvent: No information

Partition coefficient:n-octanol/water:

xylene mixed isomers pure 3.16 ethylbenzene 3.15

Decomposition temperature: No information

Other information:Liquefied gas content (40% ratio by weight)

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 danger information:

The container internal pressure must be $4.5 \mathrm{kg/cm2}$ in normal temperature.

It is an inflammable in high pressure gas.

There is an extremely weak anesthetic effect.

Inflammation and frostbite might be caused when touches the liquefaction gas.

11. TOXICOLOGICAL INFORMATION

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Acute toxicity:
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isobutane

LC50 (gas) 855ppm(4h)

xylene mixed isomers pure

 $\begin{array}{lll} LD50\,({\rm oral}) & 4300{\rm mg/kg(4h)} \\ LD50\,({\rm dermal}) & >4350{\rm mg/kg(4h)} \\ LC50\,({\rm vapour}) & 6700{\rm ppm(4h)} \end{array}$

ethylbenzene

LD50 (oral) 3500mg/kg(4h) LD50 (dermal) 15400mg/kg(4h) LC50 (vapour) 4000ppm(4h)

ethanol

 LD50 (oral)
 >5000mg/Kg(4h)

 LD50 (dermal)
 20000ppm(4h)

 LC50 (dust,mist)
 63000mg/L(4h)

methanol

LD50 (oral) 7939mg/Kg(4h)
LD50 (dermal) 15800mg/Kg(4h)
LC50 (vapour) >22500ppm(4h)

propane

LC50 (gas) 38890ppm(4h)

Skin corrosion/irritation:

xylene mixed isomers pure Category2

ethylbenzene Category3 mineral spirit Category2

Serious eye damage /irritation:

xylene mixed isomers pure Category2A

ethylbenzene Category2B ethanol Category2A methanol Category2A dimethyl ether Category2B

Mutagenicity (germ cell mutagenicity):

ethanol Category1B

Carcinogenicity:

ethylbenzene Category2

Reproductive toxicity:

xylene mixed isomers pure Category1B

ethanol Category1A methanol Category1B

Specific target organ / systemic toxicity - single exposure:

xylene mixed isomers pure Category1

(Liver, Respiratory organs, Kidney, Central nervous system)

Category3

(Narcotic effects)

n-butane Category3 (Narcotic effects)

ethylbenzene Category2

(Central nervous system)

Category3

((Respiratory tract irritation)

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mineral spirit Category3

((Respiratory tract irritation, Narcotic effects)

ethanol Category3

((Respiratory tract irritation, Narcotic effects)

methanol Category1

(The ophthalmencephalon, Systemic toxicity, Central nervous system)

Category3

((Respiratory tract irritation, Narcotic effects)

propane Category3

(Narcotic effects)

Specific target organ / systemic toxicity - repeated exposure:

xylene mixed isomers pure Category1

(Respiratory organs, Nervous system)

mineral spirit Category2

(Liver, Spermary)

ethanol Category1

(Liver)

Category2

(Nervous system)

methanol Category1

(The ophthalmencephalon, Central nervous system)

Aspiration hazard:

xylene mixed isomers pure Category2

ethylbenzene Category1

mineral spirit Category1

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:

xylene mixed isomers pure Category2

ethylbenzene Category1

mineral spirit Category1

Hazardous to the aquatic environment - Chronic hazard:A120

xylene mixed isomers pure Category2

mineral spirit Category1

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, materils 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 regulat ion or laws relating to disposal and cleaning of waste, or let special disposing agent to dispose. Dispose after removing gas completely, and in addition, avoid fire and inhalation of the its mist. 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 hazar dous 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 u nder agreement, because there are specified as Special Controlled Industrial waste(waste oil). Polluted container and packing:

Let authorized industrial waste disposing agent to dispose of them under agreement.

- ·Dispose a container after removing gas completely by opening an aperture using commercially available aperture open device.
- •Be careful about the spouts of contents when the removing from a container and opening an aperture in a container.

Dispose of used container after removing contents completely.

14. TRANSPORT INFORMATION

After confirming the state of container had no leakage, and load to prevent collapsing, fall and damage.

Obey the discription of "Handling and Storage"

UN number:1950

Land transportation:

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

Marine transportation:

Obey the provisions of "Ship Safety Act"

Air transportation:

Obey the provisions of "Civil Aeronautics Act"

Other:

On the transportation, prevent from collapse, fall and damage under keeping container below 40° C. Indicator number: 126

15. REGULATORY INFORMATION

Fire and Disaster Management Act:

Dangerous, Category 4, petroleum-category 2, dangerous grades III.

Industrial Safety and Health Act:

·Dangerous goods (Flammable material, Flammable gas)

Table 1-4 by Act of Parliament, Flammable material

Article 57-2, notifiable substances

Law concerning Reporting, Poisonous Division 2.

Ordinance on Prevention of Organic Solvent Poisoning, Class 2 Organic Solvents

High pressure gas control low

Liquefied gas, Flammable gas (except: aerosol)

Ship Safety Act:

·Dangerous Goods (Hight-pressure gas)

Aviation Law:

·High-pressure gas

Waste Management and Public Cleansing Act: Flammable material

Pollutant Release and Transfer Register Law:

Class 1

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.

Other information:

This SDS is necessary to handle our product properly.

However the contents above is prepared based on information or data available at present, the evaluation of hazardousness and harmfulness is not adequate, 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, according to relevant local laws as required when handling.