

물질안전보건자료 (Material Safety Data Sheet)

Product Name

DongSuh Lacquer Spray Paint

1. Product and Company Identification

A. Product name

DongSuh Lacquer Spray Paint (All Colors)

B. Recommended use of the product and limitations in use

Recommended use of the product

Painting and Repair of wood and steel

Limitations in use

Do not use the product for other materials than wood and steel. Do not get it exposed to heat. Keep the product away from the hands of children. Using the product in a closed space can cause explosion and suffocation. Thus, keep it in a well-ventilated place. Neither spray on the body nor inhale the product. Do not give any impact on the container.

C. Information on

Company name

DongSuh Chemical Co., Ltd.

Address

220-1, Seoknam-dong, Seo-gu, Incheon

Telephone number for emergency

032) 571-6010

2. Hazards Identification Including Emergency Overview

A. Hazard and Danger Class & Category

Explosive substance: Class 1.1

Flammable gas: Category 1

Flammable liquid: Category 2

Oxidative gas: Category 1

High-pressure gas: liquefied gas

Acute toxicity(inhale: vapour): Category 4

Skin corrosivity/Skin irritation: Category 2

Serious eye damage/eye irritation: Category 2

Carcinogenicity: Category 2

Reproductive toxicity: Category 1A

Specific target organ toxicity(1-time exposure): Category 2

Specific target organ toxicity(1-time exposure): Category 3(respiratory system)

Specific target organ toxicity(1-time exposure): Category 3(narcotic action)

Specific target organ toxicity(repeated exposure): Category 2

Aspiration hazard: Category 2

B. Warning Signs and Precautionary statements

Warning Signs



Sign Meaning

Danger

Hazard and danger statements

H220 Extremely flammable gas

H223 Flammable aerosol

H225 Extremely flammable liquid and vapours

	H270 May cause or intensify fire; oxidizer
	H280 Contains gas under pressure; may explode if heated
	H305 May be harmful if swallowed and enters airways
	H315 Causes skin irritation
	H319 Causes serious eye irritation
	H330 Fatal if inhaled
	H335 May cause respiratory irritation
	H336 May cause drowsiness or dizziness
	H373 May cause damage to organs (specific target organs) through prolonged or repeated exposure
Precautionary statements	
Precaution	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.</p> <p>P220 Keep/Store away from clothing/.../combustible materials.</p> <p>P250 Do not subject to grinding/shock/.../friction.</p> <p>P260 Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>P261 Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P281 Use personal protective equipment as required.</p> <p>P284 Wear respiratory protection.</p>
Response	<p>P301+P310 Immediately call a POISON CENTER or doctor/physician, if swallowed.</p> <p>P302+P352 Wash with plenty of soap and water, if on skin.</p> <p>P304+P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing, if inhaled.</p> <p>P305+P351+P338 Rinse cautiously with water for several minutes, if in eyes. Continue rinsing.</p> <p>P312 Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P314 Get medical advice/attention if you feel unwell.</p> <p>P332+P313 Get medical advice/attention, if skin irritation occurs.</p> <p>P337+P313 Get medical advice/attention, if eye irritation persists.</p> <p>P362 Take off contaminated clothing and wash before reuse..</p> <p>P370+P376 In case of fire, stop leak if safe to do so.</p> <p>P370+P380 In case of fire, evacuate area.</p> <p>P372 Explosion risk in case of fire.</p> <p>P373 DO NOT fight fire when fire reaches explosives.</p> <p>P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.</p> <p>P381 Eliminate all ignition sources if safe to do so.</p>
Storage	<p>P401 Store properly in accordance with relevant laws.</p> <p>P403 Store in a well-ventilated place.</p> <p>P403+P235 Store in a well-ventilated place and keep cool.</p> <p>P410+P403 Protect from sunlight and store in a well-ventilated place.</p>
Disposal	P501 Dispose of contents/container in accordance with relevant laws.

3. Composition abd Information on Ingredients

Ingredient Name	Synonym (Common Name)	CAS No.	Content (%)
Pyroxylin	CELLULOSE, NITRATE	9004-70-0	2~5

Propane	N-Propane	74-98-6	8~10
Toluene	Methylbenzene	108-88-3	8~10
Acetone	2-Propanone	67-64-1	25~30
EPA40			3~5
Business Confidentiality			5~10
Dimethyl Ether	METHYL ETHER;	115-10-6	30~35
GLYCEROL-PENTAERYTHRITOL-PHTHALIC A...	GLYPTAL;	61215-87-0	7.5

4. First Aid Measures

- A. 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.
- B. If on skin
If on skin (or hair), remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation occurs, get medical advice/attention.
If lightly in contact with skin, prevent contaminated regions from expanding.
In case of burns, keep a burnt region cool with cold water as long as possible, and do NOT remove the clothing sticking to skin.
Wash skin with soap and water.
- C. If inhaled
If in contact with liquefied gas, melt the contact region with lukewarm water.
Immediately call a POISON CENTER or doctor/physician.
Do NOT induce vomiting.
- D. If eaten
If exposed to excess dust or hume, remove with clear air. In the case of coughing or other symptoms, get medical advice/attention.
If swallowed, call a POISON CENTER or doctor/physician.
Do NOT induce vomiting.
If eaten or inhaled, do NOT perform mouth-to-mouth resuscitation and use proper respiratory medical equipment.
If exposed, contact medical staff and take special emergency measures including Let medical staff recognize relevant materials and take protective action.
- E. Other matters in medical attention

5. Fire Fighting Measures

- A. Appropriate(inappropriate) extinguishing
Appropriate(inappropriate) extinguishing media
Use alcohol foam, CO₂, or water spray to extinguish fire related to this ingredient.
Use dry sand or soil if extinguishing by smoking.
- B. Special hazards coming from chemicals
Special hazards coming from chemicals
Explosive ; mass explosion hazard
Extremely flammable gas
Highly flammable liquid and vapour
May cause or intensify fire; oxidizer
Contains gas under pressure; may explode if heated
May cause explosion in fire
Contacting other combustible materials may cause fire.
Vapour may catch fire by moving to ignition sources.
Irritating and very toxic gas may occur by pyrolysis or combustion while burning.
Explosive mixture may be created at a flash point or beyond.
May ignite combustible materials (e.g., wood, paper, oil, clothing)
Heating may cause explosion of the container.
Highly flammable: easily ignited by heat/sparks/open flames

Create explosive mixture if exposed to air
Extremely flammable
Spillage may cause fire/explosion.
Vapor explosion may occur indoors, outdoors, or drain.
Easily ignited by heat/sparks/open flames
Vapour may create explosive mixture if exposed to air.
Vapour may cause flash back by moving to ignition source.
Be careful that after evaporation, some combustible residues may remain.

C. Protective equipment and preventive

In case of fire, evacuate area.
DO NOT fight fire when fire reaches explosives.
Rescuers should wear proper protective equipment.
Go back away area, keep a safe distance and extinguish fire.
Stop leak if safe to do so.
Stop leak if safe to do so.
Rescuers should wear proper protective equipment.
Be careful that liquefied gas vapour can diffuse because it is heavier than air.
Be careful that damaged cylinder may fly.
Do not extinguish leaking gas fire, unless leak can be stopped safely.
Move the container in fire area if safe to do so.
Be careful that most chemicals are lighter than water.

6. Accidental Release Measures

A. Measures and protective equipment necessary to protect the human body	Do not breathe dust/fume/gas/mist/vapours/spray. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Immediately mop up something split and take preventive measures Keep away from combustible materials and spillage. Do Not give water to leak source directly. Eliminate all ignition sources. Ventilate contaminated area. Stop leak if safe to do so. Be careful that after evaporation, some combustible residues may remain. Do not touch damaged container or spillage without wearing proper Vapour suppressing foam may be used to reduce vapour. Bear the materials and conditions to avoid in mind.
B. Measures necessary to protect the environment	Prevent inflow to waterway/drains/underground/closed space. Prevent vapour from diffusing via drains/ventilators/closed space. Absorb liquid and wash contaminated area with detergent and water. Do Not use combustible materials including sawdust. Use clean explosion proof tools to collect absorbed materials.
C. Purification or Removal	

7. Handling and Storage

A. Safe handling tips

Do not handle before reading and understanding all safe and precautionary
Avoid breathing 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.
Do Not put pressure; do Not subject to cutting, welding, soldering, bonding,
piercing, polishing, or exposure to heat/open flames/flames/static

	Explosion may cause injuries or death.
	Product residues may remain after container is empty. Thus follow all MSDS/Label precautionary measures.
	Handle and store in attention.
	Turn a tap on carefully before opening.
	Prevent long or constant skin contact.
	Bear the materials and conditions to avoid in mind.
	Be careful about heat.
	Hypoxia may occur if working at a low and closed space. Measure oxygen density on air and ventilate while working.
B. Safe storage	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
	Keep/Store away from clothing/.../combustible materials.
	Do not subject to grinding/shock/ ... /friction.
	Store properly in accordance with relevant laws.
	Store in a well-ventilated place. Keep cool.
	Protect from sunlight. Store in a well-ventilated place.
	If container is exposed to heat, its pressure can go up. Be careful not to get it exposed to heat.

8. Exposure Control & Personal Protection

A. Exposure standards, ecological exposure standards, etc. of chemicals

Domestic Regulation

Pyroxylin	No Data
Propane	No Data
Toluene	TWA - 50ppm 188mg/m ³ STEL - 150ppm 560mg/m ³
Acetone	TWA - 500ppm 1188mg/m ³ STEL - 750ppm 1782mg/m ³
Dimethyl Ether	No Data
GLYCEROL-PENTAERYTHRITOL-	No Data

ACGIH Regulation

Pyroxylin	No Data
Propane	TWA 2500 ppm
Toluene	TWA 50 ppm
Acetone	TWA 500 ppm STEL 750 ppm
Dimethyl Ether	No Data
GLYCEROL-PENTAERYTHRITOL-	No Data

Ecological exposure standards

B. Appropriate engineering management	Do process separation and local ventilation, or make other engineering management to lower an air level to less than exposure value. Install washing system and safety shower for the equipment which stores or uses
---------------------------------------	---

C. Personal protective equipment

Respiratory protection	Wear the respiratory protective equipment reflecting the physical and chemical characteristics of the product.
------------------------	--

9. Physical & Chemical Properties

A. Appearance

Shape	Liquid
Color	Unique color by product
B. Odor	No Data
C. Threshold odor number	No Data
D. pH	No Data
E. Melting Point/Freezing Point	No Data

F. Initial Boiling Point & Boiling Point Range	No Data
G. Flash Point	No Data
H. Evaporation Speed	No Data
I. Flammable(Solid, Gas)	No Data
J. Upper/Lower Bounds of Ignition or	No Data
K. Vapour Pressure	No Data
L. Solubility	No Data
M. Vapour Density	No Data
N. Specific Gravity	No Data
O. n-Octanol/Water Partition Coefficient	No Data
P. Autoignition Temperature	No Data
Q. Decomposition Temperature	No Data
R. Viscosity	No Data
S. Molecular Weight	No Data

(Reference) Dimethyl Ether for spray gas

A. Appearance

Shape	Gas
Color	Colorless
B. Odor	Ether odor
C. Threshold odor number	No Data
D. pH	(N/A)
E. Melting Point/Freezing Point	-141.5 °C
F. Initial Boiling Point & Boiling Point Range	-23.6 °C
G. Flash Point	-80 °C
H. Evaporation Speed	No Data
I. Flammable(Solid, Gas)	No Data
J. Upper/Lower Bounds of Ignition or	26.7 / 3.4 %
K. Vapour Pressure	(5.12 hPa at 20 °C)
L. Solubility	2.4 g/100mℓ
M. Vapour Density	1.6
N. Specific Gravity	0.61
O. n-Octanol/Water Partition Coefficient	0.1
P. Autoignition Temperature	350 °C
Q. Decomposition Temperature	No Data
R. Viscosity	No Data
S. Molecular Weight	46.1

10. Stability & Reactivity Data

A Possibility of chemal stability and hazardous	Safet at room temperature.
B. contions to avoid	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
C. Materials to avoid	Keey away from combustible materials.
D. Hazardous materials generated by	No Data

11. Toxicological Information

A. Information on highly possible exposure	No Data
B. Information on health hazards	
Acute toxicity	No Data
Skin corrosivity/Skin irritation	No Data
Serious eye damage/eye irritation	No Data

Respiratory sensitization	No Data
Skin sensitization	No Data
Carcinogenicity	No Data
Germ cell mutagenicity	No Data
Reproductive toxicity	No Data
Specific target organ toxicity(1-time)	No Data
Aspiration hazard	No Data

12. Ecological Information

A. Ecological toxicity	No Data
B. Persistence & Decomposition	No Data
C. Bioaccumulation	No Data
D. Soil mobility	No Data
E. Other hazardous effects	No Data

13. Disposal Considerations

A. Disposal method	Dispose of the content and container in accordance with Wastes Control Act.
B. Disposal matters in attention	Dispose of the content and container in accordance with relevant laws.

14. Transport Information

A. UN No.	
Dimethyl Ether	1033
Propane	1978
B. Proper Shipping Name	
Dimethyl Ether	Dimethyl Ether
Propane	PROPANE
C. Transport Hazard Class	
Dimethyl Ether	2.1
Propane	2.2
D. Container Class	
Dimethyl Ether	No Data
Propane	-
E. Marine Pollution Materials	
Dimethyl Ether	N/A
Propane	No Data
F. Special safety measures that users need to know or need in terms of transport or transport means:	Transport at room temperature.
Emergent measures in fire	
Dimethyl Ether	F-D
Propane	F-D
Emergent measures in leak	
Dimethyl Ether	S-U
Propane	S-U

15. Regulatory Information

A. Regulation by Occupational Safety and	
Pyroxylin	No Data
Propane	No Data
Toluene	Management Material
	Work Environment Measurement Material (Measurement cycle: 6 months)
	Special Health Diagnosis Material(Diagnosis cycle: 12 months)

		Exposure Standard Material
Acetone		Management Material
		Work Environment Measurement Material (Measurement cycle: 6 months)
		Special Health Diagnosis Material(Diagnosis cycle: 12 months)
		Exposure Standard Material
Dimethyl Ether		No Data
GLYCEROL-PENTAERYTHRITOL-		No Data
B. Regulation by Toxic Chemical Substance		
Pyroxylin		No Data
Propane		No Data
Toluene		Accident Preparation Material
		Toxic Agent
Acetone		No Data
Dimethyl Ether		No Data
GLYCEROL-PENTAERYTHRITOL-		No Data
C. Regulation by Safety Control of Dangerous		
Pyroxylin		Class-5 Nitric Ester 10kg
Propane		No Data
Toluene		Type-4 1 Petroleum (Insoluble liquid) 200ℓ
Acetone		Type-4 1 Petroleum(Soluble liquid) 400ℓ
Dimethyl Ether		No Data
GLYCEROL-PENTAERYTHRITOL-		No Data
D. Regulation by Wastes Control Act		
Pyroxylin		No Data
Propane		Specified waste
Toluene		Specified waste
Acetone		No Data
Dimethyl Ether		Specified waste
GLYCEROL-PENTAERYTHRITOL-		No Data
E. Regulation by other domestic and foreign		
Domestic regulation		
Persistent Organic Pollutants Control Act	N/A	
Foreign regulation		
US Management Information (OSHA)		
Pyroxylin		1133.9975 kg 2500 lb
Propane		N/A
Toluene		N/A
Acetone		N/A
Dimethyl Ether		N/A
GLYCEROL-PENTAERYTHRITOL-		N/A
US Management Information (OSHA)		
Pyroxylin		N/A
Propane		N/A
Toluene		453.599 kg 1000 lb
Acetone		2267.995 kg 5000 lb
Dimethyl Ether		N/A
GLYCEROL-PENTAERYTHRITOL-		N/A

	US Management Information (EPCRA	N/A
	US Management Information(EPCRA 304	N/A
	US Management Information(EPCRA 313	N/A
	Pyroxylin	N/A
	Propane	N/A
	Toluene	Applicable
	Acetone	N/A
	Dimethyl Ether	N/A
	GLYCEROL-PENTAERYTHRITOL-	N/A
	US Management Information(Rotterdam	N/A
	US Management Information(Stockholm	N/A
	US Management Information(Montreal	N/A
	Pyroxylin	N/A
	EU Classification Information(Confirmed	
	Pyroxylin	N/A
	Propane	F+; R12/
	Toluene	F; R11Repr.Cat.3; R63Xn; R48/20-65Xi; R38R67
	Acetone	F; R11Xi; R36R66R67
	Dimethyl Ether	F+; R12
	GLYCEROL-PENTAERYTHRITOL-	N/A
	EU Classification Information(Hazard	
	Pyroxylin	N/A
	Propane	R12
	Toluene	R11, R38, R48/20, R63, R65, R67
	Acetone	R11, R36, R66, R67
	Dimethyl Ether	R12
	GLYCEROL-PENTAERYTHRITOL-	N/A
	EU Classification Information(Safety	
	Pyroxylin	N/A
	Propane	S2, S9, S16
	Toluene	S2, S36/37, S46, S62
	Acetone	S2, S9, S16, S26, S46
	Dimethyl Ether	S2, S9, S16, S33
	GLYCEROL-PENTAERYTHRITOL-	N/A

16. Other Information

- A. First written on 2023-04-01
- B. No. of revisions & Final revision date
- | | |
|---------------------|------------|
| No. of revisions | 4 times |
| Final revision date | Dec. 12.23 |
- C. Others

○ The above Material Safety Data Sheet was written after reference to and edition and some change of the MSDS provided Korea Occupational Safety and Health Agency.