

Material Safety Data Sheet

ROVAL® Cold Galvanizing Spray High-Build Type

Section 1- Product and Company Identification

SUPPLIER:	ROVAL USA Corporation <www.roval-usa.com>
ADDRESS:	12270 NW Luoto Ln. Carlton. OR 97111
MANUFACTURER:	Shanghai Roval Zinc Rich Paint Corporation
ADDRESS:	Fengong Road 393, Malu Town, Jiading District, Shanghai, China 20180
EMERGENCY PHONE:	(800)222-1222 Poison Control
INFORMATION PHONE:	(86)21-69156584
DATE REVISED:	May 16, 2011

Section 2-Composition/Information on Ingredients

INGREDIENT	OSHA PEL	ACGIH TLV	CAS NO.	wt %
Zinc	---	---	7440-66-6	30~40%
Xylene	100ppm	100ppm	1330-20-7	1~5%
Ethyl benzene	100ppm	100ppm	100-41-4	1~5%
Acetone	1000ppm	750ppm	67-64-1	10-15%
DME	---	---	115-10-6	30~40%

(Net weight : 420ml=454g)

Section 3- Hazard Identification

<p>Classification: Flammable Liquid, Vapor and high-pressure gas. Harmful or fatal if swallowed. Vapor harmful.</p> <p>Emergency Overview: Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Avoid prolonged contact with eyes, skin, and clothing. DO NOT ingest. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Aspiration hazard if swallowed- can enter lungs and cause damage. There is some just weak anesthesia. When liquefied gas touches skin again, an inflammation and frostbite are caused.</p> <p>Potential Acute Health: Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.</p> <p>Note to Physician: Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause mild to severe pulmonary injury and possible death.</p>
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Section 4-First Aid Measures

<p>Skin Contact: Remove coating with solvent. Immediately wash affected area with soap and water.</p>
<p>Eye Contact: Flash immediately with large amount of water at least 15 minutes. Get medical attention.</p>
<p>Ingestion: Do not make to be spat. Do not swallow when vomiting. Get medical attention.</p>
<p>Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Pre-existing medical conditions such as eye, skin and respiratory disorders may be aggravated by exposure.</p>

Section 5-Fire Fighting Measures

Extinguishing Media:	Carbon dioxide, dry chemical powder, form, sand
Special Fire Fighting Procedures:	Wear protective clothing, respirator, chemical safety goggles, rubber boots and heavy rubber globes.
Unusual Fire and Explosion Hazard:	Isolate from heat, electrical equipment, sparks and open flame. Water may be used to cool closed containers to prevent pressure built-up and possible spontaneous ignition or explosion when exposure to extreme heat is prevent. Aerosols are under pressure. Exposure in excess of 120-F may cause bursting of can.

Section 6-Accidental Release Measure

Personal precautions:	Avoid breathing solvent vapors. Use the necessary personal protective equipment when handling.
Environmental precautions:	Do not empty into drains or water. Avoid sparks, flames and anything which can cause fire.
Methods for cleaning:	Sweep up spilt product and fill into container for disposal.

Section 7-Handling and Storage

Storage:	Store in a cool(below 40°C) and dry place, avoid sunshine directly. Provide good room ventilation. Isolate from fire, heat and water.
Handling:	Be care that the content will spout when shaking. Do not puncture or incinerate container.

Section 8-Exposure Controls

Engineering measures:	Use protective equipment from explosion. Use air extractors to prevent fume formation. Precautions should generally be taken against electrostatic charges according to the equipment used and the way the product is handled and packaged.
Eye protection:	Chemical goggles with side shields or face recommended.
Hand protection:	Protective gloves.
Hygienic Practices:	Wash thoroughly after handling.
Others:	Protective creams and clothing recommended to skin contact.

Section 9-Physical and Chemical Properties

Boiling Point	-12.64 ~ 221.8°F	Specific Gravity	1.84kg / L or 15.3lbs / gal (liquid paint)
Vapor Pressure(kPa)	506.6 (69.5°F)	Melting Point	Not available.
Vapor Density(AIR=1)	>air	Evaporation Rate (Butyl Acetate=1)	Not available.
Solubility in Water	Insoluble.	MIR	0.81g O3/g (< 1.20 Flat Coating)
Appearance and Odor	Gray. Smells like thinner.		
Flash Point(Method Used)	-4°F	Flammable Limits (vol %)	LEL 1.0 UEL 27

Section 10-Stability and Reactivity

Stability:	Stable.
Condition to Avoid:	Heat, open fire and sparks. Do not allow the can to exceed 120 degrees F.
Incompatibility(Materials to Avoid):	strong oxidizing agents
Hazardous Decomposition or Byproducts:	None are known
Hazardous Polymerization:	Will Not Occur.

Section 11-Toxicological Information

Route(s) of Entry:	Inhalation?	Yes	Skin?	Yes	Ingestion?	Yes
Health Hazards(Acute and Chronic):	LD50 oral, rat :	4300mg/kg	(Xylene)	LD50 oral, rat :	3500mg/kg	(Ethyl benzene)
	LD50 oral, rat :	5800mg/kg	(Acetone)			
Carcinogenicity:	NTP Carcinogen					
	Ingredient	Known	Anticipated	IARC Category	Carcinogenic Effects	
	Xylene	No	No	3	A4	
	Ethyl benzene	No	No	2B	A3 Proven for animals	
	Acetone	No	No	None	A4	
	*A4 (Not classifiable for human or animal.)					
Signs and Symptoms of Exposure:	Not available.					
Medical Conditions Generally Aggravated by Exposure:	Not available.					

Section 12-Ecological Information

<p>Ecotoxicity: Toxic to aquatic life.</p> <p>Xylene: Fish toxicity: 96-hour TLm = 8.05 mg/L (Rainbow Trout).</p> <p>Fish toxicity: 96-hour TLm = 16.1 mg/L (Fathead Minnow and Bluegill Sunfish).</p> <p>Mobility: Readily absorbed into soil.</p> <p>Persistence and degradability: None are known.</p> <p>Bioaccumulative potential: None are known.</p> <p>Other adverse effects: This product does not contain any CFC's, chlorinated solvents, or heavy metals (lead, mercury, cadmium, etc.).</p> <p>Environmental Data: (percentage by weight)</p> <p>CFC: 0 HFC: 0 CL.Solv. 0 VOC: 46.2 (less acetone) HCFC: 0</p> <p>According to this sheet when disposal and leakage.</p>

Section 13-Disposal Considerations

<p>Constantly observing local regulations.</p> <p>Contaminated, empty containers are to be treated in the same way as the contents.</p> <p>Disposal should be in accordance with local state and federal regulation.</p> <p>The gas should be discharged perfectly when disposal of aerosol can.</p>
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Section 14-Transport Information

U.S. Department of Transportation (DOT)

Hazard Class: 2.1 Packing Group: - UN number: 1950
Proper Shipping Name: AEROSOLS, FLAMMABLE, Consumer Commodity ORM-D

Land Transport ADR/RID (CROSS BORDER)

ADR/RID Class: 2 GASES Item: 5F DANGER CODE (KEMLER): -
UN Number: 1950 Description of goods: 1950 AEROSOLS

International Maritime Organization IMDG

IMDG Class: 2 IMO regulation Page Number: 2102 UN Number: 1950
Packing group: II EMS Number: F-D, S-U Marine Pollutant: NO
Proper Shipping Name: AEROSOLS PRODUCT (IN LIMITED QUANTITIES)

Air Transport ICAO-TI AND IATA-DGR

ICAO/IATA Class: 2.1
UN/ID Number: 1950
Packing Group: -
Proper Shipping Name: AEROSOLS, FLAMMABLE, N.O.S.

Section 15-Regulatory Information

U.S. Federal Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA) (40 CFR 302.4)

Zinc ---- 1000 lbs RQ Acetone ---- 5000 lbs RQ
Xylene ---- 100 lbs RQ Ethyl benzene ---- 1000 lbs RQ

Releases to air, land, or water which exceed the RQ must be reported to the National Response Center [In USA: 1-(800)-424-8802] and to your Local Emergency Planning Committee.

Toxic Substances Control Act (TSCA): All components of this product are included on TSCA inventory.

Clean Air Act (CAA): This product does not contain any class 1 or 2 ozone depleters.

This product contains xylene (CAS 1330207, 1-5%by weight), ethyl benzene (CAS 100414, 1-5% by weight), listed as hazardous air pollutant.

Superfund Amendments and Reauthorization Act(SARA) Title III Information:

SARA Section 302 (extremely hazardous substances): Not listed

304 Extremely Hazardous Substances: No listed ingredients are present on the 302/304 list.

SARA 311/312 Categories: Acute Health, Chronic Health, Fire Hazard, Sudden Release of Pressure

SARA Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section

313 Reporting requirements:

Zinc	7440-66-6	30-40%
Xylene	1330-20-7	1-5%
Ethyl Benzene	100-41-4	1-5%

U.S. State Regulation:

California Proposition 65 Chemicals known to cause cancer or reproductive toxicity (2007):

This product contains ethyl benzene (1-5%), listed under chemicals know to the state to cause cancer.

Canadian Regulation

Canadian Environmental Protection Act:

All of the components of this product are included on the Canadian Domestic Substances list (DSL).

Canadian Workplace Hazardous Materials Information System (WHMIS):

Class A Compressed gas

Class B-5 Flammable aerosol

Class D-2B Material causing other toxic effects (TOXIC)



Section 16-Other Information

National Fire Protection Association (NFPA) Rating:

Health=2 Flammability=4 Reactivity=1 Special Hazards None

Disclaimer: The information contained herein is accurate to the best of our knowledge. My company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.