CHEMICAL PRODUCT SAFETY DATA SHEET

Prepared in accordance with GB/T 16483 and GB/T 17519.

1. Chemical product and company identification

Product name **Zinc-It® Instant Cold Galvanize**

Product code 18412, PR18412

Company name CRC Industries, Inc.

Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 1-215-674-4300

Technical Assistance 1-800-521-3168

Customer Service 1-800-272-4620

24-Hour Emergency (CHEMTREC) +86 532 83889090 (China)
1-703-527-3887 (International)

Website www.crcindustries.com

Recommended use and Limitations on use

Recommended use Coating

Issue date 11-04-2014

Supersedes date 10-29-2014

2. Hazards identification

Emergency overview Extremely flammable aerosol. Pressurized container may explode when exposed to heat or flame. May be fatal if swallowed and enters airways. Causes skin irritation. Possible reproductive hazard. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. Dangerous for the environment if discharged into watercourses.

GHS-classification

Physical hazards	Aerosols	Category 1
Health hazards	Acute toxicity, oral	Category 5
	Skin corrosion/irritation	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2 (central nervous system)
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
Other hazards which do not result in classification	Not classified.	

Label elements

Pictograms

GHS-labeling

Signal word Danger

Hazard statement Extremely flammable aerosol. Pressurized container: May burst if heated. May be harmful if swallowed. Causes skin irritation. Suspected of damaging fertility or the unborn child by inhalation. May cause drowsiness or dizziness. May cause damage to organs (Central nervous system) through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe mist or vapor. Do not breathe gas. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (see this label). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. IF exposed or concerned: Get medical advice/attention. Collect spillage.

Storage Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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

Physical and chemical hazards Extremely flammable aerosol. Pressurized container: May burst if heated.

Health hazards May cause damage to organs (Central nervous system) through prolonged or repeated exposure. May be fatal if swallowed and enters airways. May be harmful if swallowed. Causes skin irritation. Suspected of damaging fertility. May cause drowsiness and dizziness.

Environmental hazards Very toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients

Substance/mixture Mixture

Chemical name	CAS Number	Concentration (%)
Zinc, Elemental	7440-66-6	40 - 50
Propane	74-98-6	10 - 20
Toluene	108-88-3	10 - 20
n-Butane	106-97-8	5 - 10
Stoddard Solvent	8052-41-3	5 - 10
Distillates (petroleum), hydrotreated light	64742-47-8	3 - 5
Isopropyl alcohol	67-63-0	1 - 3
Silicic acid, aluminum sodium salt	1344-00-9	1 - 3
Zinc oxide	1314-13-2	1 - 3
n-Methyl-2-pyrrolidone	872-50-4	< 0.3

4. First aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact Take off contaminated clothing and wash before reuse. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.

Most important symptoms and health effects Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged exposure may cause chronic effects. May cause drowsiness or dizziness. Skin irritation. May cause redness and pain. Direct contact with eyes may cause temporary irritation.

Expected acute symptoms and delayed symptoms Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged exposure may cause chronic effects. May cause drowsiness or dizziness. Skin irritation. May cause redness and pain. Direct contact with eyes may cause temporary irritation.

Personal protection for first-aid responders	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Notes to physician	Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

Extinguishing media	Powder. Foam. Dry sand. Carbon dioxide (CO2).
Extinguishing media to avoid	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards	Contents under pressure. Pressurized container may rupture when exposed to heat or flame.
Special fire fighting procedures	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Protection of fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
General fire hazards	Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear appropriate personal protective equipment. Do not breathe mist or vapor. Do not breathe gas. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
For emergency responders	Wear appropriate protective equipment and clothing during clean-up. Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground. Do not contaminate water. Avoid release to the environment.
Clean-up methods and materials and containment measures	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Prevention of secondary hazards	Not assigned.

7. Handling and storage

Handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact during pregnancy/while nursing. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Wear appropriate personal protective equipment. Do not re-use empty containers. Use only in well-ventilated areas. When using, do not eat, drink or smoke. Do not breathe gas. Do not breathe mist or vapor. Avoid contact with skin. Avoid contact with eyes. Wash hands thoroughly after handling. Do not empty into drains. Observe good industrial hygiene practices. Avoid release to the environment.
Storage	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Exposure limits

China

Components	Type	Value
Isopropyl alcohol (CAS 67-63-0)	STEL	700 mg/m3
	TWA	350 mg/m3

Components	Type	Value
Toluene (CAS 108-88-3)	STEL	100 mg/m3
	TWA	50 mg/m3
Zinc oxide (CAS 1314-13-2)	STEL	5 mg/m3
	TWA	3 mg/m3

Biological limit values

China. Biological limit values for occupational exposure (WS/T 110 to 115, 239 to 243, and 264 to 267)

Components	Value	Determinant	Specimen	Sampling Time
Toluene (CAS 108-88-3)	1.5 g/g	Hippuric acid	Creatinine in urine	*
	2 g/l	Hippuric acid	Urine	*
	5 mg/m3	toluene		*
	20 mg/m3		End-exhaled air	*
	11 mmol/l	Hippuric acid	Urine	*
	1 mol/mol	Hippuric acid	Creatinine in urine	*

* - For sampling details, please see the source document.

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Isopropyl alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*
n-Methyl-2-pyrrolidone (CAS 872-50-4)	100 mg/l	5-Hydroxy-N-methyl-2-pyrrolidone	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines

China OELs: Skin designation

TOLUENE (CAS 108-88-3) Can be absorbed through the skin.

Control parameters Follow standard monitoring procedures.

Engineering measures Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Respiratory protection If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Hand protection Wear protective gloves such as: Nitrile. Neoprene.

Eye protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear appropriate chemical resistant clothing.

Hygiene measures When using do not smoke. When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Aerosol.
Color	Gray.
Odor	Aromatic.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	-166 °F (-110 °C)
Flash point	-2.2 °F (-19 °C) Closed Cup
Flammability limit - lower (%)	0.5 %
Flammability limit - upper (%)	10.9 %
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	1556.1 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.77 - 0.85
Density	Not available.
Solubility(ies)	
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	410 °F (210 °C) estimated
Decomposition temperature	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	Stable at normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Nitrates. Fluorine. Chlorine.
Hazardous decomposition products	Carbon monoxide. Hydrocarbon fumes and smoke.

11. Toxicological information

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May be harmful if swallowed.

Product	Species	Test Results
Zinc-It® Instant Cold Galvanize		
Acute		
Dermal		
LD50	Rabbit	12044.21 mg/kg estimated
Inhalation		
LC50	Rat	59203.4453 mg/m³, 4 hours estimated
		30704.2031 ppm, 4 hours estimated
		8891.8916 mg/l, 4 hours estimated
Oral		
LD50	Rat	3610.4482 mg/kg estimated

Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Symptoms	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Aspiration may cause pulmonary edema and pneumonitis. Skin irritation. May cause redness and pain. Direct contact with eyes may cause temporary irritation.
Skin corrosion/irritation	Causes skin irritation.

Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Stoddard Solvent (CAS 8052-41-3)	3 Not classifiable as to carcinogenicity to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.

Toxic to reproduction	Suspected of damaging the unborn child.
Specific target organ toxicity following single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity following repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicological data

Components		Species	Test Results
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)			
Aquatic			
Acute			
Fish	LC50	Fathead minnow (Pimephales promelas)	45 mg/l, 96 hours
Isopropyl alcohol (CAS 67-63-0)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours
Silicic acid, aluminum sodium salt (CAS 1344-00-9)			
Aquatic			
Fish	LC50	Guppy (Poecilia reticulata)	1800 - 3200 mg/l, 96 hours
Toluene (CAS 108-88-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours
Zinc oxide (CAS 1314-13-2)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	0.098 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	1.1 ppm, 96 hours
Zinc, Elemental (CAS 7440-66-6)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	2.8 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.56 mg/l, 96 hours

Ecotoxicity	Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation	

Bioaccumulative potential

Octanol/water partition coefficient log Kow

Isopropyl alcohol	0.05
n-Butane	2.89
n-Methyl-2-pyrrolidone	-0.54
Propane	2.36
Stoddard Solvent	3.16 - 7.15
Toluene	2.73

Mobility in soil This product is miscible in water.

Other hazardous effects None known.

13. Disposal considerations

Residual waste Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

Recommended methods for final destination

Local disposal regulations Dispose of contents/container in accordance with local/regional/national regulations. Consult authorities before disposal. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies.

14. Transport information

CNDG

UN number UN1950
UN proper shipping name Aerosols, flammable, (each not exceeding 1 L capacity)
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Packing group -
Environmentally hazardous Yes
Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number UN1950
UN proper shipping name Aerosols, flammable, limited quantity
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Packing group Not applicable.
Environmental hazards Yes
ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed.
Cargo aircraft only Allowed.

IMDG

UN number UN1950
UN proper shipping name AEROSOLS, LIMITED QUANTITY, MARINE POLLUTANT
Transport hazard class(es)
Class 2
Subsidiary risk -
Packing group Not applicable.
Environmental hazards
Marine pollutant Yes
EmS F-D, S-U
Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available.

CNDG; IATA; IMDG

Marine pollutant

15. Regulatory information

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Applicable regulations

General Rule For Classification and Hazard Communication of Chemicals (GB 13690-2009) and Dangerous Chemical Products

Isopropyl alcohol (CAS 67-63-0)
n-Butane (CAS 106-97-8)
Propane (CAS 74-98-6)
Toluene (CAS 108-88-3)
Zinc, Elemental (CAS 7440-66-6)

Explosive Precursor Hazardous Chemicals

ZINC POWDER OR ZINC DUST (PYROPHORIC) (CAS 7440-66-6)	5.13 Pyrophoric solids, Category 1; Substances and mixtures, which in contact with water, emit flammable gases, Category 1

Occupational exposure limits for hazardous agents in the workplace (GBZ 2.1-2007)

Isopropyl alcohol (CAS 67-63-0)
Toluene (CAS 108-88-3)
Zinc oxide (CAS 1314-13-2)

National Catalogue of Hazardous Wastes

Stoddard Solvent (CAS 8052-41-3)
Zinc oxide (CAS 1314-13-2)

Restricted Import/Export Toxic Chemical List (MEP and GCA Announcement No. 2008-66, Dec. 1, 2008, amended through MEP and Customs Notice No. 2011-91, December 28, 2011)

Not regulated.

Classification and code of dangerous goods (GB6944-2005)

Regulated.

List of Dangerous Goods (GB 12268-2005)

Regulated.

The Principle of Classification of Transport Packaging Groups of Dangerous Goods (GB/T15098-2008)

Regulated.

General Specifications for Transport Packages of Dangerous Goods (GB 12463-2009)

Regulated.

Regulations on Road Transport of Dangerous Goods

Regulated.

Regulations on Rail Road Transport of Dangerous Goods

Regulated.

UN Recommendations on the Transport of Dangerous Goods (UN RTDG)

Regulated.

16. Other information

References Not available.

Disclaimer The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries.