Safety Data Sheet: HY-ZINC AEROSOL

Supercedes Date 03/27/2014 **Issuing Date** 01/22/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name HY-ZINC AEROSOL
Recommended use Corrosion inhibitor
Information on Manufacturer
CHEMSEARCH DIV. OF NCH CORP.

BOX 152170
IRVING, TX 75015

Product Code 5519
Chemical nature Solvent mixture
Emergency Telephone Number
CHEMTREC® 800-424-9300
Telephone inquiry
972-579-2477

2. HAZARD IDENTIFICATION

Color Dark gray **Physical State** Liquid **Odor** Aromatic

GHS
Classification

Physical Hazards

Flammable aerosols	Category 1
Gases under pressure	Compressed Gas

Health Hazard

Skin Corrosion/Irritation	Category 2
Reproductive Toxicity	Category 2
Specific target organ systemic toxicity (single exposure)	Category 3
Specific target organ systemic toxicity (repeated exposure)	Category 2

Other hazards
None

Labeling
Signal Word
DANGER

Hazard Statements
H222 - Extremely flammable aerosol
H336 - May cause drowsiness or dizziness
H315 - Causes skin irritation
H373 - May cause damage to organs through prolonged or repeated exposure
H361 - Suspected of damaging fertility or the unborn child
H280 - Contains gas under pressure; may explode if heated

Precautionary Statements
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, sparks, open flames or hot surfaces.
P251 - Pressurized container: Do not pierce or burn, even after use
P211 - Do not spray on an open flame or other ignition source
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P280 - Wear protective gloves, protective clothing and eye protection.
P260 - Do not breathe vapor, mist or gas
P271 - Use in a well-ventilated area.
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water
P332 + P313 - If skin irritation occurs, get medical attention.
P362 - Take off contaminated clothing and wash before reuse
P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a physician if unwell.
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P501 - Dispose of contents and container in accordance with applicable regulations.

46 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Zinc	7440-66-6	30-60

Toluene	108-88-3	10-30
Propane	74-98-6	7-13
Isobutyl acetate	110-19-0	7-13
Butane	106-97-8	3-7
Mineral spirits	64742-47-8	1-5
Zinc oxide	1314-13-2	1-5
1-Methyl-2-pyrrolidinone	872-50-4	0.1-1

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4. FIRST AID MEASURES

General advice Avoid breathing vapors, mist, or gas. Avoid contact with skin, eyes and clothing.
Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.
Skin Contact Wipe up with absorbent material (e.g. cloth, fleece). Wash off with soap and plenty of water. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.
Inhalation Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention immediately.
Ingestion Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention if symptoms occur.
Notes to physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flash Point -2 °F / -19 °C **Method** Tag closed cup
Flammability Limits in Air % Mixture. **Upper** 10.5 **Lower** 1.1
Suitable Extinguishing Media
Carbon dioxide (CO2). Dry chemical. Water spray. Foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards arising from the chemical
Extremely flammable. Solvent vapors are heavier than air and may spread along floors. Vapors may ignite and explode. Material can create slippery conditions.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Aerosol Level (NFPA 30B) - 1

NFPA	**Health** 2	**Flammability** 4	**Instability** 0
HMIS	**Health** 2	**Flammability** 4	**Instability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Take precautionary measures against static discharges. Remove all sources of ignition. Material can create slippery conditions.
Environmental Precautions Do not flush into surface water or sanitary sewer system.
Methods for Containment Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Methods for Cleaning Up Use clean non-sparking tools to collect absorbed material. Pick up and transfer to properly labeled containers.
Neutralizing Agent Not applicable.

7. HANDLING AND STORAGE

Handling Keep away from open flames, hot surfaces and sources of ignition. Avoid breathing vapors, mist or gas. Avoid contact with skin, eyes and clothing.
Storage Keep away from heat and sources of ignition. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

Storage Temperature	**Minimum**	35 °F / 2 °C		**Maximum**	120 °F / 49 °C		
Storage Conditions	**Indoor**	X	**Outdoor**	**Heated**		**Refrigerated**	

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines ***

Component	ACGIH TLV	OSHA PEL	NIOSH
Toluene	TWA: 20 ppm	TWA: 200 ppm Ceiling: 300 ppm	500 ppm STEL 150 ppm STEL 560 mg/m^3 TWA: 100 ppm

			TWA: 375 mg/m^3
Propane	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m^3	2100 ppm TWA: 1000 ppm TWA: 1800 mg/m^3
Isobutyl acetate	TWA: 150 ppm	TWA: 150 ppm TWA: 700 mg/m^3	1300 ppm TWA: 150 ppm TWA: 700 mg/m^3
Butane	STEL: 1000 ppm	No data available	TWA: 800 ppm TWA: 1900 mg/m^3
Zinc oxide	TWA: 2 mg/m^3 respirable fraction STEL: 10 mg/m^3	TWA: 5 mg/m^3 fume TWA: 15 mg/m^3 total dust TWA: 5 mg/m^3 respirable fraction	500 mg/m^3 Ceiling: 15 mg/m^3 STEL 10 mg/m^3 TWA: 5 mg/m^3 dust and fume

Engineering Measures Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Personal Protective Equipment

Eye/Face Protection Tightly fitting safety goggles.

Skin Protection Wear suitable protective clothing, Impervious gloves.

Respiratory Protection In case of insufficient ventilation wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Viscosity**	Viscous
Color	Dark gray	**Odor**	Aromatic
Odor Threshold	Not applicable	**Appearance**	Opaque
pH	No data available	**Specific Gravity**	0.85
Evaporation Rate	>1 (BuAc=1,)	**Percent Volatile (Volume)**	>45
VOC Content (%)	45.4	**VOC Content (g/L)**	593.8
Vapor Pressure	2063 mmHg @ 0 °C	**Vapor Density**	> 1 (Air = 1)
Solubility	No information available	**n-Octanol/Water Partition**	No data available
Melting Point/Range	No data available	**Decomposition Temperature**	No data available
Boiling Point/Range	-166 °F / -110 °C	**Flammability (solid, gas)**	No data available
Flash Point	-2 °F / -19 °C	**Method**	Tag closed cup
Autoignition Temperature	No information available.		
Flammability Limits in Air %	Mixture.	**Upper** 10.5 **Lower** 1.1	

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.

Conditions to Avoid Keep away from open flames, hot surfaces, and sources of ignition, Temperatures above 120 °F .

Incompatible Products No materials to be especially mentioned

Hazardous Decomposition Products None under normal use

Possibility of Hazardous Reactions None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

Oral LD50 No information available

Dermal LD50 No information available

Inhalation LC50

Gas No information available

Mist No information available

Vapor No information available

Principle Route of Exposure Eye contact, Skin contact, Inhalation.

Primary Routes of Entry Inhalation, Skin Absorption.

Acute Effects

Eyes May cause eye irritation.

Skin Causes skin irritation. May be absorbed through the skin in harmful amounts.

Inhalation Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness,

drowsiness and in extreme cases, loss of consciousness.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Toxicity May cause damage to organs through prolonged or repeated exposure if inhaled. May cause damage to the kidneys/liver/eyes/brain/respiratory system/central nervous system if inhaled. Liver and kidney injuries may occur. Suspect reproductive hazard - contains material which may injure unborn child.

Target Organ Effects Central nervous system, Heart, Eyes, Kidney, Liver, Respiratory system, Skin, Reproductive System, Spleen, Adrenal gland.

Aggravated Medical Conditions Neurological disorders, Kidney disorders, Liver disorders, Respiratory disorders.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Toluene	= 636 mg/kg (Rat)	= 8390 mg/kg (Rabbit) = 12124 mg/kg (Rat)	= 12.5 mg/L (Rat) 4 h > 26700 ppm (Rat) 1 h	no data available	no data available
Propane	no data available	no data available	= 658 mg/L (Rat) 4 h	no data available	no data available
Isobutyl acetate	= 15400 mg/kg (Rat)	> 17400 mg/kg (Rabbit)	no data available	no data available	no data available
Butane	no data available	no data available	= 658 g/m^3 (Rat) 4 h	no data available	no data available
Mineral spirits	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h	no data available	no data available
Zinc oxide	> 5000 mg/kg (Rat)	no data available	no data available	no data available	no data available
1-Methyl-2-pyrrolidinone	= 3598 mg/kg (Rat)	= 8 g/kg (Rabbit)	= 3.1 mg/L (Rat) 4 h	no data available	no data available

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Toluene	no data available	no data available	yes	yes	CNS, eyes, kidneys, liver, respiratory system, skin, reproductive system
Propane	no data available	no data available	no data available	no data available	CNS, heart
Isobutyl acetate	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system,skin
Butane	no data available	no data available	no data available	no data available	CNS, heart
Zinc oxide	no data available	no data available	no data available	no data available	respiratory system
1-Methyl-2-pyrrolidinone	no data available	no data available	no data available	no data available	Respiratory system, spleen, adrenal gland, kidney, liver

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Toluene	not applicable	Group 3	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Zinc	EC50 0.09 - 0.125 mg/L Pseudokirchneriella subcapitata 72 h EC50 0.11 - 0.271 mg/L Pseudokirchneriella subcapitata 96 h	LC50 0.211 - 0.269 mg/L Pimephales promelas 96 h LC50 2.16 - 3.05 mg/L Pimephales promelas 96 h LC50 = 0.24 mg/L Oncorhynchus mykiss 96 h LC50 = 0.41 mg/L Oncorhynchus mykiss 96 h LC50 = 0.45 mg/L Cyprinus carpio 96 h LC50 = 0.59 mg/L Oncorhynchus mykiss 96 h LC50 = 2.66 mg/L Pimephales promelas 96 h LC50 = 3.5 mg/L Lepomis macrochirus 96 h LC50 = 30 mg/L Cyprinus carpio 96 h LC50 = 7.8 mg/L Cyprinus carpio 96 h	no data available	0.139 - 0.908: 48 h Daphnia magna mg/L EC50 Static	N/A
Toluene	EC50 = 12.5 mg/L Pseudokirchneriella subcapitata 72 h EC50 > 433 mg/L Pseudokirchneriella subcapitata 96 h	LC50 11.0 - 15.0 mg/L Lepomis macrochirus 96 h LC50 14.1 - 17.16 mg/L Oncorhynchus mykiss 96 h LC50 15.22 - 19.05 mg/L Pimephales promelas 96 h LC50 5.89 - 7.81 mg/L	EC50 = 19.7 mg/L 30 min	5.46 - 9.83: 48 h Daphnia magna mg/L EC50 Static 11.5: 48 h Daphnia magna mg/L EC50	2.65

		Oncorhynchus mykiss 96 h LC50 50.87 - 70.34 mg/L Poecilia reticulata 96 h LC50 = 12.6 mg/L Pimephales promelas 96 h LC50 = 28.2 mg/L Poecilia reticulata 96 h LC50 = 5.8 mg/L Oncorhynchus mykiss 96 h LC50 = 54 mg/L Oryzias latipes 96 h			
Propane	no data available	no data available	no data available	no data available	2.3
Isobutyl acetate	no data available	no data available	no data available	no data available	1.72
Butane	no data available	no data available	no data available	no data available	2.89
Mineral spirits	no data available	LC50 = 2.2 mg/L Lepomis macrochirus 96 h LC50 = 2.4 mg/L Oncorhynchus mykiss 96 h LC50 = 45 mg/L Pimephales promelas 96 h	no data available	no data available	N/A
1-Methyl-2-pyrrolidinone	EC50 > 500 mg/L Desmodesmus subspicatus 72 h	LC50 = 1072 mg/L Pimephales promelas 96 h LC50 = 1400 mg/L Poecilia reticulata 96 h LC50 = 832 mg/L Lepomis macrochirus 96 h	no data available	4897: 48 h Daphnia magna mg/L EC50	-0.46

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Contents under pressure. Do not puncture. Empty remaining contents. Empty containers should be taken for local recycling, recovery, or waste disposal.

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name Consumer commodity
Hazard Class ORM-D
Description Consumer commodity, ORM-D

TDG
Proper shipping name Aerosols
Hazard Class 2.1
UN-No UN1950

ICAO
UN-No UN1950
Proper Shipping Name Aerosols, flammable
Hazard Class 2.1
Shipping Description UN1950, AEROSOLS,2.1, LTD QTY

IATA
UN-No UN1950
Proper Shipping Name Aerosols, flammable
Hazard Class 2.1
ERG Code 10L
Shipping Description UN1950, AEROSOLS,2.1, LTD QTY

IMDG/IMO
Proper Shipping Name Aerosols
Hazard Class 2.1
UN-No UN1950
EmS No. F-D, S-U
Shipping Description UN1950, AEROSOLS,2.1, LTD QTY

15. REGULATORY INFORMATION

Inventories

TSCA	Does not Comply
DSL	Does not Comply

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Zinc	7440-66-6	30-60	1.0
Toluene	108-88-3	10-30	1.0
Zinc oxide	1314-13-2	1-5	1.0
1-Methyl-2-pyrrolidinone	872-50-4	0.1-1	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	Yes	Yes	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Zinc	1000 lb	Not applicable
Toluene	1000 lb	Not applicable
Isobutyl acetate	5000 lb	Not applicable

16. OTHER INFORMATION

Prepared By	Brittany Wilson
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Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

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