Safety Data Sheet

Issue Date 28-Aug-2018 **Revision Date** 29-Oct-2015 **Revision Number** 8

1. IDENTIFICATION

Product identifier

Product Code F091-0H20A
Product Name HYDRO-ZINC GREENISH GRAY

Other means of identification

Common Name SERIES 91-H20, PART A
UN/ID no. 1263
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use industrial paint.
Uses advised against Consumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet

Manufacturer Address
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372 816-474-3400

Distributor
Tnemec Company, Inc. 86 Boul, des Entreprises, Ste. 203, Boisbriand, Quebec Canada J7G 2T3

Emergency telephone number

Company Phone Number Tnemec Regulatory Dept: 816-474-3400
24 Hour Emergency Phone Number 800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1
Flammable Liquids	Category 2

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements
Harmful if inhaled
Causes skin irritation
Causes serious eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause cancer

Causes damage to organs
Causes damage to organs through prolonged or repeated exposure
Highly flammable liquid and vapor

Appearance opaque **Physical state** liquid **Odor** aromatic

Precautionary Statements
Prevention
Obtain special instructions before use
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Ground/bond container and receiving equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Response
IF exposed: Call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
If skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
In case of fire: Use CO2, dry chemical, or foam for extinction

Storage
Store locked up
Store in a well-ventilated place. Keep cool

Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other information
May be harmful if swallowed
May be harmful in contact with skin
Toxic to aquatic life with long lasting effects
Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).
Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs
SEE SAFETY DATA SHEET
Acute Toxicity 4.06295 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
XYLENE	1330-20-7	30 - <60%

DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER	67815-87-6	10 - <30%
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER	101-68-8	1 - <10%
ETHYL BENZENE	100-41-4	1 - <10%
POLYMERIC MDI	9016-87-9	1 - <10%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	1 - <10%
TREATED MICA (RESPIRABLE DUST)	12001-26-2	1 - <10%
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER	26447-40-5	1 - <10%
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	0.1 - <1%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice If symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion If swallowed, do not induce vomiting. Get medical attention immediately.

Self-protection of the first aider Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide. Foam. Dry chemical.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

Hazardous combustion products Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon oxides. Hydrocarbons. Oxides of nitrogen. Hydrogen cyanide. Sulfur oxides.

Protective equipment and precautions for firefighters
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling **Use only with adequate ventilation.**Avoid contact with eyes, skin and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

Incompatible products Strong oxidizing agents. Alkaline. Amines. Acids. Nitrates. Hypochlorites.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines .

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
XYLENE 1330-20-7	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 435 mg/m³ STEL: 150 ppm STEL: 655 mg/m³	
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER 101-68-8	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m³	75 mg/m³
ETHYL BENZENE 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm STEL: 545 mg/m³	800 ppm
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	TWA: 0.025 mg/m³	TWA: 0.1 mg/m³ TWA: 50 µg/m³	50 mg/m³
TREATED MICA (RESPIRABLE DUST)	TWA: 3 mg/m³	TWA: 3 mg/m³	1500 mg/m³

12001-26-2			
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER 26447-40-5	-	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m³	
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	TWA: 0.025 mg/m³	TWA: 0.1 mg/m³ TWA: 50 µg/m³	50 mg/m³

Appropriate engineering controls

Engineering measures Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH"s Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Use chemical resistant splash type goggles. If splashes are likely to occur, wear face-shield.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection INDIVIDUALS WITH LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES MUST NOT BE EXPOSED TO VAPOR OR SPRAY MIST. Do not breathe vapor or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. An airline respirator (TC 19C NIOSH/MSHA) is recommended. A vapor-particulate respirator (TC 23C NIOSH/MSHA) may be appropriate where air monitoring demonstrates vapors are less than ten times the applicable exposure limits and the isocyanate concentration is less than its applicable exposure limit. The use of an air-supplied respirator is mandatory whenever the airborne concentration of isocyanate monomer is unknown.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid		
Appearance	opaque	**Odor**	aromatic
Color	No information available	**Odor threshold**	No information available

Property	**Values**	**Remarks**
pH		No data available
Melting point / freezing point	No data available	No data available
Boiling point / boiling range	135 °C / 275.0 °F	
Flash point	11.66 °C / 53.00 °F	Pensky Martens - Closed Cup
Evaporation rate		No data available
Flammability (solid, gas)	No data available	No information available
Flammability Limit in Air		No data available
Upper flammability limit	N/A	
Lower flammability limit	1.0	
Vapor pressure		No data available
Vapor density		No data available
Specific gravity	1.08821	g/cm3
Water solubility	Insoluble in cold water	
Solubility in other solvents		No data available
Partition coefficient: n-octanol/water		No data available
Autoignition temperature	No data available	No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available

Dynamic viscosity	1375 centipoises	approx

Other Information

Density	9.07563 lbs/gal
Volatile organic compounds (VOC) content	3.78726 lbs/gal
Total volatiles weight percent	41.73 %
Total volatiles volume percent	52.23 %
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks. Amines.

Incompatible materials
Strong oxidizing agents, Alkaline, Amines, Acids, Nitrates, Hypochlorites

Hazardous decomposition products
Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon oxides. Hydrocarbons. Hydrogen cyanide. Oxides of nitrogen. Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation	Harmful if inhaled. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing. May cause sensitization of susceptible persons. Contains isocyanate monomer. If subject to spray application, engineering and administrative controls must be instituted to maintain an exposure level below .005ppm. If these controls are not adequate, the use of an air-supplied respirator is mandatory.
Eye contact	Causes serious eye damage.
Skin contact	Irritating to skin. May cause sensitization by skin contact.
Ingestion	Harmful if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
XYLENE 1330-20-7	= 3500 mg/kg (Rat)	> 1700 mg/kg (Rabbit) > 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h = 5000 ppm (Rat) 4 h
DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER 67815-87-6	-	-	490 mg/m³, 4h (rat)
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER 101-68-8	= 31600 mg/kg (Rat) = 9200 mg/kg (Rat)	-	= 369 mg/m³ (Rat) 4 h
ETHYL BENZENE 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.4 mg/L (Rat) 4 h
POLYMERIC MDI	= 49 g/kg (Rat)	> 9.4 g/kg (Rabbit) > 9400 mg/kg	= 490 mg/m³ (Rat) 4 h

9016-87-9		(Rabbit)	
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER 26447-40-5	> 10000 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	= 490 mg/m³ (Rat) 4 h

Information on toxicological effects

Symptoms Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing. Skin disorders. Respiratory disorders. Eye Damage. Irritating to eyes and skin.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Eye damage/irritation Irritating to eyes.
Chronic Toxicity NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. May cause sensitization by inhalation and skin contact. May cause cancer.
Sensitization May cause sensitization of susceptible persons.
Mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
XYLENE 1330-20-7		Group 3	-	
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER 101-68-8		Group 3	-	
ETHYL BENZENE 100-41-4	A3	Group 2B	-	X
POLYMERIC MDI 9016-87-9		Group 3	-	
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	A2	Group 1	Known	X
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER 26447-40-5		Group 3	-	
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	A2	Group 1	Known	X

Reproductive effects No information available.
STOT - single exposure May cause disorder and damage to the, Skin, Central Nervous System (CNS), Respiratory system
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure
Target organ effects Central nervous system, Gastrointestinal tract, Eyes, liver, respiratory system, Skin, blood, kidney.
Aspiration hazard No information available.

Acute Toxicity 4.06295 % of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

53.9921477 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
XYLENE 1330-20-7		LC50= 13.4 mg/L Pimephales promelas 96 h LC50 2.661 - 4.093 mg/L Oncorhynchus mykiss 96 h LC50 13.5 - 17.3 mg/L Oncorhynchus mykiss 96 h LC50	EC50 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h

		13.1 - 16.5 mg/L Lepomis macrochirus 96 h LC50= 19 mg/L Lepomis macrochirus 96 h LC50 7.711 - 9.591 mg/L Lepomis macrochirus 96 h LC50 23.53 - 29.97 mg/L Pimephales promelas 96 h LC50= 780 mg/L Cyprinus carpio 96 h LC50> 780 mg/L Cyprinus carpio 96 h LC50 30.26 - 40.75 mg/L Poecilia reticulata 96 h	
ETHYL BENZENE 100-41-4	4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 438: 96 h Pseudokirchneriella subcapitata mg/L EC50 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 9.6: 96 h Poecilia reticulata mg/L LC50 static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static	1.8 - 2.4: 48 h Daphnia magna mg/L EC50
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER 26447-40-5	3230: 96 h Skeletonema costatum mg/L EC50		1000: 24 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility in Environmental Media

Chemical name	log Pow
XYLENE 1330-20-7	2.77
ETHYL BENZENE 100-41-4	3.118
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER 26447-40-5	4.5

Other Adverse Effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
XYLENE 1330-20-7		Included in waste stream: F039		U239
ETHYL BENZENE 100-41-4		Included in waste stream: F039		
MALEIC ANHYDRIDE 108-31-6	U147	Included in waste streams: K023, K093		U147

Chemical name	CAWAST
XYLENE 1330-20-7	Toxic Ignitable
ETHYL BENZENE 100-41-4	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID no.	1263
Proper Shipping Name	PAINT
Hazard Class	3
Packing Group	III
Emergency Response Guide Number	128

Additional information Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does Not Comply
ENCS	Does Not Comply
IECSC	Complies
KECL	Complies
PICCS	Does Not Comply
AICS	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Chemical name	**HAPS Data**
XYLENE	
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER	
ETHYL BENZENE	

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 and Title 40n of the Code of Federal Regulations, Part 372:

Chemical name	SARA 313 - Threshold Values
XYLENE - 1330-20-7	1.0
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER - 101-68-8	1.0
ETHYL BENZENE - 100-41-4	0.1
POLYMERIC MDI - 9016-87-9	1.0
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER - 26447-40-5	1.0

SARA 311/312 Hazardous Categorization

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

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
XYLENE 1330-20-7	100 lb			X
ETHYL BENZENE 100-41-4	1000 lb	X	X	X

Chemical name	Hazardous Substances RQs	CERCLA EHS RQs	RQ
XYLENE 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER 101-68-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
ETHYL BENZENE 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

California Prop. 65

WARNING: This product can expose you to the following chemicals which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Chemical name	California Prop. 65
DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER - 67815-87-6	IARC Group 3
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER - 101-68-8	IARC Group 3
ETHYL BENZENE - 100-41-4	Carcinogen
POLYMERIC MDI - 9016-87-9	IARC Group 3
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER - 26447-40-5	IARC Group 3
CRYSTALLINE SILICA (QUARTZ) - 14808-60-7	Carcinogen
DIPHENYLMETHANE DIISOCYANATE (VOLATILE MONOMER) - 101-68-8	IARC Group 3
TITANIUM DIOXIDE - 13463-67-7	Carcinogen

California SCAQMD Rule 443
Contains Photochemically Reactive Solvent

State Right-to-Know

Chemical name	New Jersey	Massachusetts	Pennsylvania
XYLENE 1330-20-7	X	X	X
DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER 101-68-8	X	X	X
ETHYL BENZENE 100-41-4	X	X	X
POLYMERIC MDI 9016-87-9	X		
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	X	X	X
TREATED MICA (RESPIRABLE DUST) 12001-26-2	X	X	X
DIPHENYLMETHANE-2,2-DIISOCYANATE MONOMER 26447-40-5	X		
CRYSTALLINE SILICA (QUARTZ) 14808-60-7	X	X	X

16. OTHER INFORMATION

NFPA	**Health** 3	**Flammability** 3	**Instability** 1	**Physical hazard** *
HMIS (Hazardous	**Health** 3*		**Reactivity** 1	

Material Information System)

Flammability 3

Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 29-Oct-2015
Revision Summary
9 4 5 6 7 10 8 11 14 1

Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of SDS

Safety Data Sheet

Issue Date 05-Jun-2017 **Revision Date** 05-Jun-2017 **Revision Number** 7

1. IDENTIFICATION

Product identifier

Product Code F091-0H20B
Product Name HYDRO-ZINC ZINC PIGMENT

Other means of identification

Common Name SERIES 91-H20, PART B
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use industrial paint.
Uses advised against Consumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet

Manufacturer Address
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372 816-474-3400

Distributor
Tnemec Company, Inc. 86 Boul, des Entreprises, Ste. 203, Boisbriand, Quebec Canada J7G 2T3

Emergency telephone number

Company Phone Number Tnemec Regulatory Dept: 816-474-3400
24 Hour Emergency Phone Number 800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust	-

Label elements

EMERGENCY OVERVIEW

WARNING

May form combustible dust concentrations in air

Appearance dark grey **Physical state** powder **Odor** odorless

Precautionary Statements
Prevention
Do not handle until all safety precautions have been read and understood

Response
Get medical advice/attention if you feel unwell

Storage
Keep away from children

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
May cause respiratory irritation
May cause skin and eye irritation
May form combustible dust concentrations in air
Other information
Very toxic to aquatic life with long lasting effects
SEE SAFETY DATA SHEET
Inhalation of metallic zinc dust may result in symptoms known as metal fume fever. Symptoms include chills, fever, muscular pain, nausea and vomiting
Acute Toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical name	CAS No	Weight-%
ZINC (TOTAL DUST)	7440-66-6	60 - 100%
ZINC OXIDE (TOTAL DUST)	1314-13-2	1 - <10%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice If symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Remove and wash contaminated clothing before re-use. Consult a physician if necessary.

Inhalation Remove to fresh air. Oxygen or artificial respiration if needed.

Ingestion If swallowed, do not induce vomiting. Get medical attention immediately.

Self-protection of the first aider Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide. Foam. Dry chemical.

Unsuitable extinguishing media Water.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes Dusts or fumes may form explosive mixtures in air

Hazardous combustion products Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic

compounds.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

Methods for cleaning up Shovel or sweep up.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Close container after each use. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Tightly fitting safety goggles. Wear protective gloves/clothing. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

Incompatible products Water. Strong oxidizing agents. Acids. Bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines .

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ZINC OXIDE (TOTAL DUST) 1314-13-2	TWA: 2 mg/m³ STEL: 10 mg/m³	TWA: 5 mg/m³ TWA: 10 mg/m³ STEL: 10 mg/m³ TWA: 15 mg/m³	500 mg/m³

Appropriate engineering controls

Engineering measures Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH"s Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment

Eye/face protection	Safety glasses with side-shields
Skin and body protection	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Respiratory protection	Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	powder		
Appearance	dark grey	**Odor**	odorless
Color	No information available	**Odor threshold**	No information available

Property	**Values**	**Remarks**
pH		No data available
Melting point / freezing point	No data available	No data available
Boiling point / boiling range	72 °C / 162 °F	
Flash point	No information available	Pensky Martens - Closed Cup
Evaporation rate		No data available
Flammability (solid, gas)	No data available	No information available
Flammability Limit in Air		approximate
Upper flammability limit	NA	
Lower flammability limit	700-750 g/m^3	
Vapor pressure		No data available
Vapor density		No data available
Specific gravity	7.05028	g/cm3
Water solubility	Insoluble in cold water	
Solubility in other solvents		No data available
Partition coefficient: n-octanol/water		No data available
Autoignition temperature	No data available	No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available

Other Information

Density	58.79932 lbs/gal
Volatile organic compounds (VOC) content	0 lbs/gal
Total volatiles weight percent	0 %
Total volatiles volume percent	0 %
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Water, Strong oxidizing agents, Acids, Bases

Hazardous decomposition products
Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation Harmful if inhaled. May cause irritation of respiratory tract.

Eye contact Irritating to eyes.

Skin contact Irritating to skin.

Ingestion Harmful if swallowed.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
ZINC OXIDE (TOTAL DUST) 1314-13-2	> 5000 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms Inhalation of metallic zinc dust may result in symptoms known as metal fume fever. Symptoms include chills, fever, muscular pain, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation May cause irritation.
Eye damage/irritation May cause eye irritation.
Chronic Toxicity Avoid repeated exposure.
Sensitization No information available.
Mutagenicity No information available.
Carcinogenicity There are no known carcinogenic chemicals in this product.
Reproductive effects No information available.
STOT - single exposure No information available
STOT - repeated exposure No information available
Target organ effects respiratory system.
Other adverse effects Inhalation of metallic zinc dust may result in symptoms known as metal fume fever. Symptoms include chills, fever, muscular pain, nausea and vomiting.
Aspiration hazard No information available.

Acute Toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

0 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia

ZINC (TOTAL DUST) 7440-66-6	0.11 - 0.271: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 0.09 - 0.125: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	2.16 - 3.05: 96 h Pimephales promelas mg/L LC50 flow-through 0.211 - 0.269: 96 h Pimephales promelas mg/L LC50 semi-static 2.66: 96 h Pimephales promelas mg/L LC50 static 30: 96 h Cyprinus carpio mg/L LC50 0.45: 96 h Cyprinus carpio mg/L LC50 semi-static 7.8: 96 h Cyprinus carpio mg/L LC50 static 3.5: 96 h Lepomis macrochirus mg/L LC50 static 0.24: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.59: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.41: 96 h Oncorhynchus mykiss mg/L LC50 static	0.139 - 0.908: 48 h Daphnia magna mg/L EC50 Static

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility in Environmental Media

Other Adverse Effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

California Hazardous Waste Status
This product contains one or more substances that are listed with the State of California as a hazardous waste

Chemical name	CAWAST
ZINC (TOTAL DUST) 7440-66-6	Ignitable Toxic
ZINC OXIDE (TOTAL DUST) 1314-13-2	Toxic

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name zinc dust Not regulated

Additional information Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

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 and Title 40n of the Code of Federal Regulations, Part 372:

Chemical name	SARA 313 - Threshold Values
ZINC (TOTAL DUST) - 7440-66-6	1.0
ZINC OXIDE (TOTAL DUST) - 1314-13-2	1.0

SARA 311/312 Hazardous Categorization

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

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
ZINC (TOTAL DUST) 7440-66-6		X	X	
ZINC OXIDE (TOTAL DUST) 1314-13-2		X		

Chemical name	Hazardous Substances RQs	CERCLA EHS RQs	RQ
ZINC (TOTAL DUST) 7440-66-6	1000 lb		RQ 454 kg final RQ RQ 1000 lb final RQ

California Prop. 65

This product does not contain any Proposition 65 chemicals

California SCAQMD Rule 443

Does Not Contain Photochemically Reactive Solvent

State Right-to-Know

Chemical name	New Jersey	Massachusetts	Pennsylvania
ZINC (TOTAL DUST) 7440-66-6	X	X	X
ZINC OXIDE (TOTAL DUST) 1314-13-2	X	X	X

16. OTHER INFORMATION

NFPA	**Health** 2	**Flammability** 1	**Instability** 1	**Physical hazard** -
HMIS (Hazardous Material Information System)	**Health** 2	**Flammability** 1	**Reactivity** 1	

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Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
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End of SDS