

1. PRODUCT AND COMPANY IDENTIFICATION
Product Identifier

Product Name ZO™ Paint
Product Code 2609150, 2609151, 2609152

Safety Data Sheet Supplier Information:

Manufacturer Paul H. Gesswein & Co., Inc.
 201 Hancock Ave.,
 Bridgeport, CT 06605
 www.gesswein.com
Telephone (General) 203-366-5400
Emergency Telephone Number (800) 255-3924 – ChemTel

2. HAZARDS IDENTIFICATION
GHS CLASSIFICATION:
SIGNAL WORD

Danger

SYMBOL(S)

PRIMARY ROUTES OF EXPOSURE

Inhalation and contact to the eyes.

HAZARD STATEMENTS

Eye corrosion	Category 1	H318	Causes serious eye damage.
Inhalation	Category 4	H332	Harmful if inhaled.
STOT:SE	Category 3	H335	May cause respiratory irritation.

PRECAUTIONARY STATEMENT(S)

P261	Avoid breathing in dust / fume / gas / mist / vapors / spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear eye protection / face protection.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or a doctor / physician.
P312	Call a POISON CENTER or doctor / physician if you feel unwell.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents / container in accordance with local / regional / national / international regulations.

SAFETY DATA SHEET

Health 1
Fire 0
Reactivity 0



3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Hazard Components		Wt.%
	Identifiers		
Zirconium Oxide	CAS No.	1314-23-4	65-70
Water	CAS No.	7732-18-5	30-35
Aluminum Oxide	CAS No.	1318-23-6	1-5

4. FIRST AID MEASURES

EYES	Flush eyes, including under the eyelids, with large amounts of water. If irritation persists, seek medical attention.
SKIN	Wash thoroughly with mild soap and water.
INGESTION	Give copious amounts of water and seek medical attention.
INHALATION	Remove to fresh air. Seek medical attention if symptoms persist.

5. FIRE FIGHTING MEASURES

Extinguishing Media	This water-based refractory coating is non-combustible. Use extinguishing media appropriate to the surrounding fire.
Flammability Classification	Non-flammable.
Special Hazards Arising from the Chemical	Upon initial exposure to high temperatures, small amounts of nitric oxide fumes will be emitted which can be corrosive to the upper respiratory system.
Hazardous Combustion Products	Oxides of nitrogen in small amounts.
Specific Protective Equipment and Precautions (Firefighters)	As in any fire, wear self-contained breathing apparatus (SCBA), NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency	Clean up personnel should wear rubber gloves and goggles to prevent irritation from contact.
Procedures	Contain the spill using a mineral absorbent. It can be readily neutralized using agents such as lime or sodium carbonate.
Environmental Precautions	Do not allow product to reach sewage system or any water course.
Methods and Materials For Containment and Cleaning Up	No special measures are required; refer to environmental and personal precautions, and other sections of this document.

SAFETY DATA SHEET

7. HANDLING AND STORAGE

SAFE HANDLING PRECAUTIONS

Practice good housekeeping. Personnel should wear the appropriate equipment when handling the paint in order to minimize contact / exposure.

SAFE STORAGE PRECAUTIONS

Store in the original container. Do not store in metal containers since the nitric acid component may be corrosive to the container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits / Guidelines

Engineering Measures / Controls

Provide adequate ventilation to control dust or vapors below the regulated exposure limits (PEL and TLV).

Personal Protective Equipment

Protective clothing should be selected specifically for the workplace, depending on the concentration and quality of the hazardous substances handled. The chemical resistance of the protective gear should be inquired from the respective supplier.

Respiratory

An appropriate NIOSH-approved respirator must be worn if exposure is likely to exceed the lowest TLV / PEL rated regulations.

Eye / Face

Safety goggles or side shielded safety glasses are recommended for any type of industrial handling.

Hands

Use impervious gloves.

Skin / Body

Normal work clothing. Note that long sleeved shirts, long pants, and gloves are recommended.

Exposure Guidelines

Zirconium Oxide

Guideline ACGIH (TLV): None established (treat as nuisance dust)
10 mg / m³ (Total dust)
5 mg / m³ (Respirable fraction)

Guideline OSHA (PEL): None established (treat as nuisance dust)
15 mg / m³ (Total dust)
5 mg / m³ (Respirable fraction)

Aluminum Oxide

Guideline ACGIH (TLV): 1 mg / m³ (Respirable fraction)
Guideline OSHA (PEL): 15 mg / m³

Nitric Acid

Guideline ACGIH (TLV): 2 ppm (5.2 mg / m³)
Guideline OSHA (PEL): 2 ppm (5 mg / m³)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Odor	Nearly odorless
Color	Cream	Vapor Pressure	10-20 mmHg
Specific Gravity	2.25 g / cc	Vapor Density	Greater than air (Air=1)
pH	1-3	Solubility in Water	Dilutable
Viscosity	2700 – 3700 cps	Freezing Point	-1° C (30° F)
Melting Point	Not determined	Boiling Point	100° C (212° F)
VOC Content	0 g / L	Percent Volatile	30% - 35%
Molecular Weight	n. ap.	Flash Point	None, no flash observed
Evaporation Rate	Similar to water	Flash Point Method	n. ap.

SAFETY DATA SHEET

10. STABILITY AND REACTIVITY

Chemical Stability	This refractory coating is stable under all normal conditions of storage. Hazardous polymerization will not occur.
Incompatible Materials	Do not mix with alcohol. As a good practice, do not mix with any other materials.
Conditions To Avoid	None known.
Hazardous Decomposition Products	None known.

11. TOXICOLOGICAL INFORMATION

Route(s) Of Entry / Exposure	Note all values are calculated in accordance with OSHA 29CFR §1910 for mixtures.
Ingestion	LD ₅₀ Oral - rat: 2074 mg / kg
Skin Absorption	LD ₅₀ Dermal – rat: 2028 mg / kg
Inhalation	LC ₅₀ Inhalation – rat (per 4 hours): 18.90 mg / L
Eye Contact	Corrosive burns after prolonged contact.
Skin Contact	Possible mild skin inflammation.
Effects of Acute Exposure	See sections above for eye contact, skin contact, ingestion, and inhalation.
Effects of Chronic Exposure	Excessive inhalation of dust above the TLV and PEL of dried material over long periods of time may cause respiratory problems.
Exposure Limits	
NTP	No ingredient of this product is present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by NTP.
IARC	No ingredient of this product is present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by IARC.
ACGIH	No ingredient of this product is present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by ACGIH.
OSHA	No ingredient of this product is present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by OSHA.
Reproductive Effects	No adverse effect.
Further Information	Quantitative data on this product is not available. No toxic effects are to be expected when this product is handled appropriately.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Data is lacking and inconclusive for this product.
Persistence / Degradability	Data is lacking and inconclusive for this product.
Bio Accumulative Potential	Data is lacking and inconclusive for this product.
Mobility in Soil	Data is lacking and inconclusive for this product.
Other Adverse Effects	Data is lacking and inconclusive for this product.

SAFETY DATA SHEET

13. DISPOSAL CONSIDERATIONS

Description of Waste

Methods of Disposal

Consult local, state, and federal regulations for compliance. Non-contaminated paint may be returned to the manufacturer for proper disposal. The dried paint generally does not exhibit any characteristics of a hazardous waste.

14. TRANSPORT INFORMATION

UN Number

DOT, IMDG, IATA

n. ap.

Proper Shipping Name

DOT, IMDG, IATA

n. ap.

Hazard Class(es)

DOT – Not Regulated

DOT, IMDG, IATA

ICAO / IATA – Not Dangerous or not hazardous goods not restricted for transport by air.

IMDG – Not Regulated

Packaging Group

DOT – Not Regulated

DOT, IMDG, IATA

ICAO / IATA – Not Dangerous or not hazardous goods not restricted for transport by air.

IMDG – Not Regulated

Environmental Hazards

DOT, IMDG, IATA

n. ap.

Special Precautions

DOT, IMDG, IATA

n. ap.

15. OTHER REGULATORY INFORMATION

California Proposition 65 Warnings

This product does not contain any material or ingredient that the State of California has found to cause cancer which would require a warning under the statute.

TSCA Inventory

All substances contained in this product are listed in the Toxic Substances Control Act Chemical Substance Inventory.

HMIS (USA)

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0

PERSONAL PROTECTION E

NFPA (USA)



Health
Flammability
Reactivity
Specific Hazard

Protective Equipment



SAFETY DATA SHEET

16. OTHER INFORMATION

SDS Number: 4339
SDS Revision Number: 2.1.0
SDS Preparation or Revision Date: March 23, 2015
SDS Prepared By: R. Bowen
Date Printed March 23, 2015

Abbreviations

Not Available	n. av.
Not Applicable	n. ap.
DOT	US Department of Transportation
IATA	International Air Transportation Association
IMDG	International Maritime Code for Dangerous Goods
ICAO	International Civilian Aviation Organization
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
CAS	Chemical Abstract Service
HMIS	Hazardous Materials Identification System (US)
NFPA	National Fire Protection Association (US)
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
STOT	Specific Target Organ Toxicity
RQ	Reportable Quantity
TPQ	Threshold Planning Quantity
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
SARA	Superfund Amendments and Reauthorization Act
TSCA	Toxic Substances Control Act
RTK	Right to Know
EPCRA	Emergency Planning and Community Right to Know Act
TLV	Threshold Limit Values
PEL	Permissible Exposure Limits

Although reasonable care has been taken in the preparation of the information contained herein, the manufacturer extends no warranties, makes no representation and assumes no responsibility as to the accuracy or suitability of such information for the application to purchaser's intended purposes or for consequences of its use.

PAUL H. GESSWEIN CO., INC. MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This product is not designed for personal non-commercial use. User is responsible for determining whether this product is fit for a particular purpose and suitable for user's application. IN NO EVENT WILL GESSWEIN BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSSES INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, IN ANY WAY RELATED TO THE PRODUCTS REGARDLESS OF THE LEGAL THEORY ASSERTED.

****Caution: HMIS ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS ratings are not required on SDS's under 29 CFR §1910.1200 the preparer may choose to provide them. HMIS ratings are to be used only in conjunction with a fully implemented HMIS program by workers who have received appropriate HMIS training. HMIS is a registered trade and service mark of the NPCA. HMIS materials may be purchased exclusively from J.J. Keller (800) 327-6868