

Material Safety Data Sheet

Material Name: GALVAPREP® 5

ID: 234451

*** Section 1 - Chemical Product and Company Identification ***

Product Trade Name GALVAPREP® 5

Manufacturer Information

Henkel Surface Technologies
Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071

Contact Phone: (248) 583-9300

Chemtrec Emergency # (800) 424-9300

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
13598-37-3	Zinc dihydrogen phosphate	10-30
7697-37-2	Nitric acid	1-10
7664-38-2	Phosphoric acid	1-10
13138-45-9	Nickel nitrate	<1

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Zinc compounds, Nitrate compounds, Nickel nitrate (14216-75-2), Nickel soluble compounds, Nickel, inorganic compounds, Nickel compounds.

*** Section 3 - Hazards Identification ***

Emergency Overview:

DANGER -- CORROSIVE! Contact with this material will cause burns to the skin, eyes and mucous membranes.

Eye Contact:

This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.

Skin Contact:

Contact with liquid may produce severe skin irritation including redness, inflammation and chemical burns. This product contains a component that may cause allergic skin reactions.

Skin Absorption:

None expected.

Ingestion:

This product may produce corrosive damage to the gastrointestinal tract if it is swallowed.

Inhalation:

Inhalation of mists of this product may cause severe irritation and burns to the respiratory tract.

Medical Conditions Aggravated by Exposure:

Pre-existing eye, skin and respiratory disorders. Preexisting cardiovascular or bone marrow diseases.

*** Section 4 - First Aid Measures ***

Eye Contact:

In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

Skin Contact:

Immediately take off all contaminated clothing. For skin contact, flush with large amounts of water. Seek immediate medical attention.

Ingestion:

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.

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Inhalation:

If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

*** Section 5 - Fire Fighting Measures ***

Flash Point: Not applicable

Method Used: Not applicable

Flammability Classification: Non-flammable

Upper Flammable Limit (UFL): Not applicable

Lower Flammable Limit (LFL): Not applicable

Fire & Explosion Hazards:

This product is an aqueous mixture which will not burn.

Decomposition Products:

Irritating and toxic gases or fumes may be released during a fire.

Extinguishing Media:

Use any media suitable for the surrounding fires.

Fire-Fighting Instructions:

Firefighters should wear full protective clothing including self contained breathing apparatus.

*** Section 6 - Accidental Release Measures ***

Containment Procedures:

Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up.

Clean-Up Procedures:

Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of collected material according to regulation.

*** Section 7 - Handling and Storage ***

Handling Procedures:

Do not get this material in your eyes, on your skin, or on your clothing. Do not take internally. Wash thoroughly after handling. Do not inhale vapors or mists of this product.

Storage Procedures:

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines:

A: General Product Information

Follow all applicable exposure limits.

B: Component Exposure Limits

Phosphoric acid (7664-38-2)

ACGIH: 1 mg/m3 TWA
3 mg/m3 STEL

OSHA: 1 mg/m3 TWA
3 mg/m3 STEL

NIOSH: 1 mg/m3 TWA
3 mg/m3 STEL

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Nitric acid (7697-37-2)

ACGIH: 2 ppm TWA
4 ppm STEL
OSHA: 2 ppm TWA; 5 mg/m3 TWA
4 ppm STEL; 10 mg/m3 STEL
NIOSH: 2 ppm TWA; 5 mg/m3 TWA
4 ppm STEL; 10 mg/m3 STEL

Nickel nitrate (13138-45-9)

ACGIH: 0.1 mg/m3 TWA (inhalable fraction) (as Ni) (related to Nickel soluble compounds)
OSHA: as Ni: 0.1 mg/m3 TWA (related to Nickel soluble compounds)

Engineering Controls:

Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Eye wash fountain and emergency showers are recommended.

Eyes/Face Protective Equipment:

Wear chemical goggles; face shield (if splashing is possible).

Skin Protection:

Use impervious gloves. Use of impervious apron and boots are recommended.

Respiratory Protection:

If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

*** Section 9 - Physical & Chemical Properties ***

Physical State: Liquid	Appearance: Clear green
Odor: Bland	Vapor Pressure: Not determined
Vapor Density: Not determined	Boiling Point: >212 ° F (>100 ° C)
Specific Gravity: 1.23-1.25	pH: <2.0
Viscosity: Not applicable	VOC: Not applicable
Solubility Water: Complete	Evaporation Rate: Not determined
Percent Volatile: Not applicable	Percent Solids: Not determined

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

None expected.

Incompatibility:

This product may react with strong alkalis.

Decomposition Products:

Decomposes with heat to produce oxides of nitrogen.

Hazardous Polymerization:

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity:

A: General Product Information

No information available for the product.

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B: Component Analysis - LD50/LC50

Zinc dihydrogen phosphate (13598-37-3)

Oral LD50 Rat : 1990 mg/kg

Oral LD50 Mouse : 1610 mg/kg

Phosphoric acid (7664-38-2)

Inhalation LC50 Rat : >850 mg/m³/1H

Oral LD50 Rat : 1530 mg/kg

Dermal LD50 Rabbit : 2740 mg/kg

Nitric acid (7697-37-2)

Inhalation LC50 Rat : 67 ppm(NO₂)/4H

Carcinogenicity:

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

Nickel nitrate (13138-45-9)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (related to Nickel soluble compounds)

IARC: Monograph 49, 1990; (Evaluated as a group) (related to Nickel compounds) (Group 1 (carcinogenic to humans))

Chronic Toxicity

Contact dermatitis in workers exposed to nickel compounds is one of the most prevalent effects of nickel exposure.

Epidemiology:

No information available for the product.

Neurotoxicity:

No information available for the product.

Mutagenicity:

No information available for the product.

Teratogenicity:

No information available for the product.

Other Toxicological Information:

None available.

*** Section 12 - Ecological Information ***

Ecotoxicity:

A: General Product Information

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Phosphoric acid (7664-38-2)

Test & Species

LC50 (96 hr) mosquito fish

138 mg/L.

Conditions

Environmental Fate:

No data is available concerning the environmental fate, biodegradation or bioconcentration for this product.

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*** Section 13 - Disposal Considerations ***

US EPA Waste Numbers & Descriptions:

A: General Product Information

This product, if discarded directly, would be a characteristic RCRA corrosive waste (D002). This chemical contains phosphates. This chemical contains heavy metals.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions:

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Please refer to the container label for transportation information.

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Zinc dihydrogen phosphate (13598-37-3)

SARA 313: form R reporting required for 1.0% de minimis concentration; Chemical Category N982 (related to Zinc compounds)

Phosphoric acid (7664-38-2)

CERCLA: final RQ = 5000 pounds (2270 kg)

Nitric acid (7697-37-2)

SARA 302: TPQ = 1000 pounds; RQ = 1000 pounds
SARA 313: form R reporting required for 1.0% de minimis concentration
CERCLA: final RQ = 1000 pounds (454 kg)

Nickel nitrate (13138-45-9)

SARA 313: form R reporting required for 0.1% de minimis concentration; Chemical Category N495 (related to Nickel compounds)
CERCLA: final RQ = 100 pounds (45.4 kg) (related to Nickel nitrate)

SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No Reactive: No

State Regulations

A: General Product Information

No additional information available.

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B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Zinc dihydrogen phosphate (¹ related to Zinc compounds)	13598-37-3	Yes ¹	No	No	No	No	No
Phosphoric acid	7664-38-2	Yes	Yes	Yes	Yes	Yes	Yes
Nitric acid	7697-37-2	Yes	Yes	Yes	Yes	Yes	Yes
Nickel nitrate (¹ related to Nickel nitrate) (² related to Nitric acid, nickel salt) (³ related to Nickel soluble compounds)	13138-45-9	Yes ¹	Yes	Yes ²	Yes ³	Yes ¹	Yes ²

Other Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Zinc dihydrogen phosphate	13598-37-3	Yes	Yes	Yes
Phosphoric acid	7664-38-2	Yes	Yes	Yes
Nitric acid	7697-37-2	Yes	Yes	Yes
Nickel nitrate	13138-45-9	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Phosphoric acid	7664-38-2	1% item 1291 (127)
Nitric acid	7697-37-2	1% item 1146 (111)
Nickel nitrate	13138-45-9	0.1% item 1132 (1208) 1% item 1144 (1191) (related to Nickel, water-soluble inorganic compounds, n.o.s.)

*** Section 16 - Other Information ***

NFPA Ratings: Health: 3 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HMIS Ratings: Health: 3* Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; NFPA = National Fire Protection Association; HMIS = Hazardous Material Identification System; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Henkel Surface Technologies bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

Contact: Regulatory Affairs and Product Acceptance

Contact Phone: (248) 583-9300

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This is the end of MSDS # 234451