

Material Safety Data Sheet

Material Name: BONDERITE 6020

ID: RS00256021 / IDH No. 1000928

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

Product Trade Name BONDERITE 6020

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
27096-04-4	Chromium (III) phosphate	10-30
13548-38-4	Chromium nitrate	1-10
7664-38-2	Phosphoric acid	1-10
7788-97-8	Chromic fluoride	<1
10141-05-6	Cobalt nitrate	<1

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Chromium compounds, Chromium, inorganic compounds, Phosphorus compounds, inorganic, Fluorides.

*** Section 3 - Hazards Identification ***

Emergency Overview:

DANGER -- CORROSIVE! May cause severe irritation or burns to the eyes, skin, gastrointestinal tract, and respiratory system.

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.

Ingestion:

Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Trivalent chromium compounds are poorly absorbed when ingested and are not known to cause any local or systemic effects.

Inhalation:

Inhalation of mists of this product may cause severe irritation and burns to the respiratory tract. Inhalation of mists or vapors may produce upper airway edema, wheezing, pulmonary edema, pneumonitis and respiratory failure.

Medical Conditions Aggravated by Exposure:

Pre-existing eye, skin and respiratory disorders.

*** 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. Flush with large amounts of water. Soak the affected area for one hour in an iced solution (0.13%) of Zephiran chloride (30 cc of 17% concentrate per gallon of iced distilled water.) GET MEDICAL ATTENTION IMMEDIATELY.

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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.

Inhalation:

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

First Aid: Notes to Physician

Treatment of hypocalcemia associated with fluoride exposure may be corrected by intravenous calcium gluconate or calcium chloride. Treatment of hypomagnesemia may be corrected by intravenous magnesium sulfate.

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

Flash Point: > 212 °F

Method Used: Calculated

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. Wash thoroughly after handling. Do not inhale vapors or mists of this product. Do not take internally. For industrial use only. Use caution when combining with water; DO NOT add water to acid, ALWAYS add acid to water while stirring to prevent release of heat, steam and fumes. Mix well before using.

Storage Procedures:

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Protect from freezing. Ship and store above 40° F. Do not store above 120 °F.

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

Exposure Guidelines:

A: General Product Information

Follow all applicable exposure limits.

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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

Chromic fluoride (7788-97-8)

ACGIH: 2.5 mg/m3 TWA (as F) (related to Fluorides)
OSHA: 2.5 mg/m3 TWA (as F) (related to Fluorides)

Engineering Controls:

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

PERSONAL PROTECTIVE EQUIPMENT

As prescribed in the OSHA Standard for Personal Protective Equipment (29 CFR 1910.132), employers must perform a Hazard Assessment of all workplaces to determine the need for, and selection of, proper protective equipment for each task performed.

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.

Work Practices:

Eye wash fountain and emergency showers are recommended.

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

Physical State:	Liquid	Appearance:	Dark green
Odor:	Mild	Vapor Pressure:	Not determined
Boiling Point:	>212 °F (>100 °C)	Specific Gravity:	1.32 -1.35
pH:	1.2	Viscosity:	Not determined
VOC:	Not applicable	Solubility Water:	Complete
Percent Solids:	35 - 45%		

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

Chemical Stability:

Stable under normal conditions.

Incompatibility:

This product may react with strong alkalis.

Decomposition Products:

May liberate hydrogen fluoride.

Hazardous Polymerization:

Will not occur.

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*** Section 11 - Toxicological Information ***

Acute Toxicity:

A: General Product Information

Phosphoric acid is an eye, skin and respiratory system irritant. Repeated exposure can cause bronchitis with cough, phlegm and shortness of breath. Long term skin contact may result in drying and cracking of the skin.

B: Component Analysis - LD50/LC50

Chromium (III) phosphate (27096-04-4)

Oral LD50 Rat: 1570 mg/kg

Chromium nitrate (13548-38-4)

Oral LD50 Rat: 3250 mg/kg

Phosphoric acid (7664-38-2)

Inhalation LC50 Rat: >850 mg/m³/1H; Oral LD50 Rat: 1530 mg/kg; Dermal LD50 Rabbit: 2730 mg/kg

Cobalt nitrate (10141-05-6)

Oral LD50 Rat: 434 mg/kg

Carcinogenicity:

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

Chromic fluoride (7788-97-8)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (related to Fluorides)

Cobalt nitrate (10141-05-6)

IARC: Monograph 52 [1991] (listed under Cobalt and Cobalt compounds)

Chronic Toxicity

Chronic fluoride exposure can produce fluorosis, a condition characterized by nausea, vomiting, loss of appetite, diarrhea or constipation, anemia, weakness, and joint stiffness.

Epidemiology:

Exposure to cobalt can lead to sensitization. In its most serious form, cobalt-sensitization can result in, or exacerbate asthma.

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

96 Hr LC50 *Gambusia affinis*

3-3.5 mg/L

Conditions

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12 Hr EC50 Daphnia magna

4.6 mg/L

Environmental Fate:

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

*** 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). You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

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).

Phosphoric acid (7664-38-2)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

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

State Regulations

A: General Product Information

No additional information available.

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
Chromium (III) phosphate (*related to Chromium compounds)	27096-04-4	Yes ¹	No	No	No	Yes ¹	Yes ¹
Chromium nitrate	13548-38-4	No	No	No	No	Yes	No
Phosphoric acid	7664-38-2	Yes	No	Yes	Yes	Yes	Yes
Chromic fluoride (*related to Chromium compounds)	7788-97-8	Yes ¹	No	No	No	Yes	Yes ¹
Cobalt nitrate	10141-05-6	No	No	Yes	No	No	Yes

Other Regulations

A: General Product Information

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

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B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Chromium (III) phosphate	27096-04-4	Yes	No	Yes
Chromium nitrate	13548-38-4	Yes	Yes	Yes
Phosphoric acid	7664-38-2	Yes	Yes	Yes
Chromic fluoride	7788-97-8	Yes	Yes	Yes
Cobalt nitrate	10141-05-6	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 %

*** 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: Product Safety and Regulatory Affairs

Contact Phone: (248) 583-9300

This is the end of MSDS # RS00256021 / IDH No. 1000928