



Safety Data Sheet

Material Name: Insta Blak 333 GEL

SDS ID: EPI-0069c

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Insta Blak 333 GEL

Product Use

Blackening Gel.

Details of the supplier of the safety data sheet

Electrochemical Products Inc.

17000 West Lincoln Ave

New Berlin, WI 53151

Phone: 262-786-9330

Emergency Phone #: NCEC (#EPI-29003) +1 202 464 2554, +44 1865 407333

E-mail: us-sales@epi.com

www.epi.com

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Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Corrosive to Metals - Category 1

Acute Toxicity - Inhalation - Vapor - Category 3

Skin Corrosion/Irritation - Category 2

Specific Target Organ Toxicity - Repeated Exposure - Category 1 (Hematopoietic System , respiratory system)

Specific Target Organ Toxicity - Repeated Exposure - Category 2 (bone marrow , kidneys , liver , stomach)

Hazardous to the Aquatic Environment - Acute - Category 1

Hazardous to the Aquatic Environment - Chronic - Category 1

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

May be corrosive to metals.

Toxic if inhaled.

Causes skin irritation.

Causes damage to organs through prolonged or repeated exposure.

May cause damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

Prevention



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Keep only in original container.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.

Response

Absorb spillage to prevent material damage.
Collect spillage.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
Call a POISON CENTER or doctor.
Specific treatment (see label).

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Store in corrosive resistant container with a resistant inner liner.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Water	80-100
7783-00-8	Selenious acid	0.5-1.5
7664-38-2	Phosphoric acid	0.5-1.5
7697-37-2	Nitric acid	0.5-1.5
7758-98-7	Sulfuric acid, copper(2+) salt (1:1)	0.5-1.5

The above percentage ranges are in compliance with the Canadian Workplace Hazardous Information System (WHMIS). Trade secret components.

Section 4 - FIRST AID MEASURES

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Give artificial respiration if not breathing. Seek medical attention.

Skin

Immediately flush skin with lots of running water for 30 minutes. Remove contaminated clothing and shoes. Wash before reuse. Get immediate medical attention.



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Eyes

In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 30 minutes. Get immediate medical attention.

Ingestion

Give several glasses of water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a victim who is unconscious or is having convulsions. Call a physician immediately.

Indication of any immediate medical attention and special treatment needed

Ingestion will result in metallic taste, garlic odor to breath, nausea. Breathing mists can cause nose and throat irritation. Garlic odor to breath, headaches, dizziness, difficulty breathing.

Note to Physicians

Ingestion will result in metallic taste, garlic odor to breath, nausea. Breathing mists can cause nose and throat irritation. Garlic odor to breath, headaches, dizziness, difficulty breathing.

Antidote

Not Applicable.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog.

Unsuitable Extinguishing Media

None known.

Special Hazards Arising from the Chemical

None known.

Hazardous Combustion Products

May produce toxic selenous fumes.

Advice for firefighters

Not available.

Fire Fighting Measures

Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing.

Firefighters should avoid inhaling any combustion products.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate protective equipment and clothing during clean-up. Avoid contact with skin and eyes.

Methods and Materials for Containment and Cleaning Up

Isolate area. Keep unnecessary personnel away. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

Environmental Precautions

Block any potential routes to water systems.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Wash thoroughly after handling. Keep container tightly closed.

Conditions for Safe Storage, Including any Incompatibilities



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Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Store in corrosive resistant container with a resistant inner liner.
Keep the container tightly closed and in a cool, well-ventilated place.

Incompatible Materials

This product may react with alkalis, strong reducing agents, organic compounds and cyanides.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Phosphoric acid	7664-38-2
ACGIH:	1 mg/m ³ TWA
	3 mg/m ³ STEL
NIOSH:	1 mg/m ³ TWA
	3 mg/m ³ STEL
	1000 mg/m ³ IDLH
Europe:	1 mg/m ³ TWA
	2 mg/m ³ STEL
OSHA (US):	1 mg/m ³ TWA
Mexico:	1 mg/m ³ TWA [VLE-PPT]
	3 mg/m ³ STEL [PPT-CT]
Nitric acid	7697-37-2
ACGIH:	2 ppm TWA
	4 ppm STEL
NIOSH:	2 ppm TWA ; 5 mg/m ³ TWA
	4 ppm STEL ; 10 mg/m ³ STEL
	25 ppm IDLH
Europe:	1 ppm STEL ; 2.6 mg/m ³ STEL
OSHA (US):	2 ppm TWA ; 5 mg/m ³ TWA



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Mexico:	2 ppm TWA [VLE-PPT]; 5 mg/m ³ TWA [VLE-PPT]
	4 ppm STEL [PPT-CT]; 10 mg/m ³ STEL [PPT-CT]

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

Engineering Controls

Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear safety glasses with side shields or chemical goggles.

Skin Protection

Use of an impervious apron is recommended. Use of protective coveralls and long sleeves is recommended.

Respiratory Protection

If ventilation is not sufficient to effectively prevent buildup of vapor/mist/fume/dust, appropriate NIOSH/MSHA respiratory protection must be provided.

Glove Recommendations

Use of impervious gloves is recommended.

Protective Materials

Eye wash fountain and emergency showers are recommended.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Blue to Green Gel.	Physical State	Liquid
Odor	Characteristic	Color	Blue/Green.
Odor Threshold	Not available	pH	0 - 1.5
Melting Point	Not available	Boiling Point	228 °F (109 °C)
Boiling Point Range	Not available	Freezing point	32 °F (0 °C)
Evaporation Rate	(Approx. equal to Water)	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	(Approx. equal to water)	Specific Gravity (water=1)	0.8 - 1.016



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Water Solubility	Completely	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	Not available
VOC	0	Molecular Weight	Not available

Section 10 - STABILITY AND REACTIVITY

Reactivity

Will not occur.

Chemical Stability

This is a stable material.

Possibility of Hazardous Reactions

Will not occur.

Conditions to Avoid

Avoid contact with extreme heat.

Incompatible Materials

This product may react with strong acids. This product may react with strong reducing agents. Organic compounds and cyanides.

Hazardous decomposition products

May produce volatile organoselenides or hydrogen selenide.

Section 11 - TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. It causes conjunctivitis leading eventually to an allergic type of reaction of the eyes. Acute selenium poisoning produces central nervous system effects, which include nervousness, convulsions, and drowsiness. Other signs of gastrointestinal distress, teeth that are discolored or decayed, odorous (garlic-like) breath, and partial loss of hair and nails. Chronic exposure by inhalation can produce symptoms that include pallor, coating of the tongue, anemia, irritation of the mucosa, lumbar pain, liver and spleen damage, as well as any of the other previously mentioned symptoms.

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

Phosphoric acid (7664-38-2)

Oral LD50 Rat 1530 mg/kg

Dermal LD50 Rabbit 2740 mg/kg

Inhalation LC50 Rat >850 mg/m³ 1 h

Nitric acid (7697-37-2)

Inhalation LC50 Rat 2500 ppm 1 h



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Sulfuric acid, copper(2+) salt (1:1) (7758-98-7)

Oral LD50 Rat 300 mg/kg

Dermal LD50 Rabbit 1000 mg/kg

Product Toxicity Data

Acute Toxicity Estimate

No data available.

Immediate Effects

No information on significant adverse effects.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

No data available.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

Germ Cell Mutagenicity

No data available.

Tumorigenic Data

No data available

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

No data available.

Specific Target Organ Toxicity - Repeated Exposure

No data available.

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

No data available.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Sulfuric acid, copper(2+) salt (1:1)	7758-98-7
Fish:	LC50 96 h Oncorhynchus mykiss 0.1 mg/L
Invertebrate:	EC50 48 h Daphnia magna 0.0058 - 0.0073 mg/L [Static] EPA

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Transport waste material to an authorized waste location, or incinerate under controlled conditions. Do not allow this material to



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drain into sewers/water supplies. Dispose of waste material in accordance with all applicable Federal, State or provincial and local environmental regulations. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: CORROSIVE LIQUIDS, N.O.S. , (Contains: Phosphoric Acid , Selenous Acid)

Hazard Class: 8

UN/NA #: UN1760

Packing Group: II

Required Label(s): Corrosive

Marine pollutant

TDG Information:

Shipping Name: CORROSIVE LIQUID, N.O.S. , (Contains: Phosphoric Acid , Selenous Acid)

Hazard Class: 8

UN#: UN1760

Packing Group: II

Required Label(s): Corrosive

Marine pollutant

International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Phosphoric acid	7664-38-2
IBC Code:	Category Z
Nitric acid	7697-37-2
IBC Code:	Category Y ($\geq 70\%$); Category Y ($< 70\%$)

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

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), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Selenious acid	7783-00-8
SARA 302:	1000 lb lower TPQ ; 10000 lb upper TPQ
CERCLA:	10 lb final RQ ; 4.54 kg final RQ



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SARA 304:	10 lb EPCRA RQ
Phosphoric acid	7664-38-2
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
Nitric acid	7697-37-2
SARA 302:	1000 lb TPQ
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ
OSHA (safety):	500 lb TQ (>=94.5% by weight)
SARA 304:	1000 lb EPCRA RQ
Sulfuric acid, copper(2+) salt (1:1)	7758-98-7
CERCLA:	10 lb final RQ ; 4.54 kg final RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Corrosive to Metals; Acute toxicity; Skin Corrosion/Irritation; Specific Target Organ Toxicity

U.S. State Regulations

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

Component	CAS	CA	MA	MN	NJ	PA
Selenious acid	7783-00-8	No	Yes	No	Yes	Yes
Phosphoric acid	7664-38-2	Yes	Yes	Yes	Yes	Yes
Nitric acid	7697-37-2	Yes	Yes	Yes	Yes	Yes
Sulfuric acid, copper(2+) salt (1:1)	7758-98-7	Yes	Yes	No	Yes	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Not listed under California Proposition 65.

Component Analysis - Inventory

Water (7732-18-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	No	No	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
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No	Yes	Yes	Yes	No	Yes	No
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Selenious acid (7783-00-8)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	No	Yes	No

Phosphoric acid (7664-38-2)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	No	Yes	No

Nitric acid (7697-37-2)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	No	Yes	No

Sulfuric acid, copper(2+) salt (1:1) (7758-98-7)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	No	Yes	No



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Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 0 Reactivity: 0

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

NFPA Ratings

Health: 2 Fire: 0 Instability: 0

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

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne - Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

Reasonable care has been taken in the preparation of this information; however, the manufacturer makes no warranty whatsoever including the warranty of merchantability, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental, consequential, or other such damages resulting from its use or misuse..