



## Safety Data Sheet

Material Name: Insta Blak SS-370

SDS ID: EPI-0043c

### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**

Insta Blak SS-370

**Product Use**

Blackening Solution.

**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

Fax: 262-786-9403

### Section 2 - HAZARDS IDENTIFICATION

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

Skin Corrosion/Irritation - Category 1

Serious Eye Damage/Eye Irritation - Category 1

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)**

Causes severe skin burns and eye damage.

Very toxic to aquatic life with long lasting effects.

**Precautionary Statement(s)**

**Prevention**

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

Avoid release to the environment.

Do not breathe dusts or mists.

**Response**

Collect spillage.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.



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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor.

Specific treatment (see label).

### Storage

Store locked up.

### 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	65-85
7647-01-0	Hydrogen chloride	10-30
7664-38-2	Phosphoric acid	0.1-1
7783-00-8	Selenious acid	1-5
7758-98-7	Sulfuric acid, copper(2+) salt (1:1)	0.1-1

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.

### 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



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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.

**Environmental Precautions**

Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. 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**

Store locked up.

Keep the container tightly closed and in a cool, well-ventilated place.

**Incompatible Materials**

None known.

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**Component Exposure Limits**

Hydrogen chloride	7647-01-0
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ACGIH:	2 ppm Ceiling
NIOSH:	5 ppm Ceiling ; 7 mg/m3 Ceiling
	50 ppm IDLH
Europe:	5 ppm TWA ; 8 mg/m3 TWA
	10 ppm STEL ; 15 mg/m3 STEL
OSHA (US):	5 ppm Ceiling ; 7 mg/m3 Ceiling
Mexico:	2 ppm Ceiling
<b>Phosphoric acid</b>	<b>7664-38-2</b>
ACGIH:	1 mg/m3 TWA
	3 mg/m3 STEL
NIOSH:	1 mg/m3 TWA
	3 mg/m3 STEL
	1000 mg/m3 IDLH
Europe:	1 mg/m3 TWA
	2 mg/m3 STEL
OSHA (US):	1 mg/m3 TWA
Mexico:	1 mg/m3 TWA [VLE-PPT ]
	3 mg/m3 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



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Use of impervious gloves is recommended.

### Protective Materials

Eye wash fountain and emergency showers are recommended.

### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Light Blue Solution	<b>Physical State</b>	Liquid
<b>Odor</b>	Characteristic	<b>Color</b>	Not available
<b>Odor Threshold</b>	Not available	<b>pH</b>	<1
<b>Melting Point</b>	Not available	<b>Boiling Point</b>	228 °F (109 °C)
<b>Boiling Point Range</b>	Not available	<b>Freezing point</b>	32 °F (0 °C)
<b>Evaporation Rate</b>	(Approx. equal to Water)	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition Temperature</b>	Not available	<b>Flash Point</b>	Not available
<b>Lower Explosive Limit</b>	Not available	<b>Decomposition temperature</b>	Not available
<b>Upper Explosive Limit</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Vapor Density (air=1)</b>	(Approx. equal to water)	<b>Specific Gravity (water=1)</b>	1.05 - 1.07
<b>Water Solubility</b>	Completely	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	Not available	<b>Kinematic viscosity</b>	Not available
<b>Solubility (Other)</b>	Not available	<b>Density</b>	Not available
<b>VOC</b>	0	<b>Molecular Weight</b>	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



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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

#### Hydrogen chloride (7647-01-0)

Oral LD50 Rat 238 - 277 mg/kg

Dermal LD50 Rabbit >5010 mg/kg

Inhalation LC50 Rat 1.68 mg/L 1 h

#### Phosphoric acid (7664-38-2)

Oral LD50 Rat 1530 mg/kg

Dermal LD50 Rabbit 2740 mg/kg

Inhalation LC50 Rat >850 mg/m<sup>3</sup> 1 h

#### 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



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Hydrogen chloride	7647-01-0
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 54 [1992] (Group 3 (not classifiable))

### 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 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: Hydrochloric Acid , Selenous Acid )

**Hazard Class:** 8

**UN/NA #:** UN1760



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**Packing Group:** II

**Required Label(s):** Corrosive  
Marine pollutant

**TDG Information:**

**Shipping Name:** CORROSIVE LIQUID, N.O.S. , ( Contains: Hydrochloric 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.

<b>Hydrogen chloride</b>	<b>7647-01-0</b>
IBC Code:	Category Z
<b>Phosphoric acid</b>	<b>7664-38-2</b>
IBC Code:	Category Z

### 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.

<b>Hydrogen chloride</b>	<b>7647-01-0</b>
SARA 302:	500 lb TPQ gas only )
SARA 313:	1 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size )
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
OSHA (safety):	5000 lb TQ ; 5000 lb TQ (anhydrous )
SARA 304:	5000 lb EPCRA RQ gas only )
<b>Phosphoric acid</b>	<b>7664-38-2</b>
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
<b>Selenious acid</b>	<b>7783-00-8</b>





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SARA 302:	1000 lb lower TPQ ; 10000 lb upper TPQ
CERCLA:	10 lb final RQ ; 4.54 kg final RQ
SARA 304:	10 lb EPCRA RQ
<b>Sulfuric acid, copper(2+) salt (1:1)</b>	<b>7758-98-7</b>
CERCLA:	10 lb final RQ ; 4.54 kg final RQ

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

Skin Corrosion/Irritation; Serious Eye Damage/Eye Irritation

**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
<b>Hydrogen chloride</b>	<b>7647-01-0</b>	Yes	Yes	Yes	Yes	Yes
<b>Phosphoric acid</b>	<b>7664-38-2</b>	Yes	Yes	Yes	Yes	Yes
<b>Selenious acid</b>	<b>7783-00-8</b>	No	Yes	No	Yes	Yes
<b>Sulfuric acid, copper(2+) salt (1:1)</b>	<b>7758-98-7</b>	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	Yes	No	Yes	No

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

**Hydrogen chloride (7647-01-0)**

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, CN	VN (Draft)



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Yes	Yes	Yes	Yes	Yes	Yes	Yes
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### 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, CN	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

### 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, CN	VN (Draft)
Yes	Yes	Yes	Yes	Yes	Yes	Yes

### 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, CN	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

## 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

### 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 -



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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; KR REACH CCA - Korea Registration and Evaluation of Chemical Substances Chemical Control Act; 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; TH-TECI - Thailand - FDA Existing Chemicals Inventory (TECI); 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..