



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

E-Phos 630

Product Use

Manganese. phosphate.

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

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Causes severe skin burns and eye damage.

Precautionary Statement(s)

Prevention

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

Wash thoroughly after handling.

Do not breathe dusts or mists.

Response

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

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.



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

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	50-60
7664-38-2	Phosphoric acid	25-30
1344-43-0	Manganese oxide (MnO)	5-10
7697-37-2	Nitric acid	3-5
Trade Secret	Nickel, inorganic compounds	0.1-0.9

Section 4 - FIRST AID MEASURES

Inhalation

Remove to fresh air. Give artificial respiration if not breathing. Get immediate medical attention.

Skin

Immediately flush skin with lots of running water for 5 minutes. Remove contaminated clothing and shoes. Wash before reuse. Get immediate medical attention.

Eyes

Immediately flush with lots of running water for 15 minutes, lifting the upper and lower eye lids occasionally. Washing eyes within several seconds is essential to achieve maximum effectiveness. Get immediate medical attention.

Ingestion

Do not induce vomiting. Give large quantities of water. If available, give several glasses of milk. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water spray, foam, carbon dioxide or dry chemical may be used in areas where the product is stored.

Hazardous Combustion Products

Nitrogen oxides (NOx).

Fire Fighting Measures

Protective clothing and self-contained breathing apparatus should be worn by fire fighters in areas where product is stored.

Section 6 - ACCIDENTAL RELEASE MEASURES



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

Personal Precautions, Protective Equipment and Emergency Procedures

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this SDS.

Environmental Precautions

Dike the spill with sand or earth. Sweep up and shovel into suitable containers for disposal.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Wash thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities

Store locked up.

Keep container tightly closed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Phosphoric acid	7664-38-2
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 [LMPE-PPT]
	3 mg/m3 STEL [LMPE-CT]
Nitric acid	7697-37-2
ACGIH:	2 ppm TWA
	4 ppm STEL
NIOSH:	2 ppm TWA ; 5 mg/m3 TWA



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

	4 ppm STEL ; 10 mg/m3 STEL
	25 ppm IDLH
Europe:	1 ppm STEL ; 2.6 mg/m3 STEL
OSHA (US):	2 ppm TWA ; 5 mg/m3 TWA
Mexico:	2 ppm TWA [LMPE-PPT]; 5 mg/m3 TWA [LMPE-PPT]
	4 ppm STEL [LMPE-CT]; 10 mg/m3 STEL [LMPE-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 local exhaust ventilation.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Safety glasses or chemical goggles. It is generally recognized that contact lenses should not be worn when working with chemicals because they may contribute to the severity of an eye injury.

Skin Protection

The use of rubber gloves, long sleeved shirt and trousers are required.

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

The use of rubber gloves is recommended.

Protective Materials

Eye wash fountain and emergency showers are recommended.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear liquid.	Physical State	Liquid
Odor	Acidic.	Color	Blue/Green.
Odor Threshold	Not available	pH	0 - 2
Melting Point	Not available	Boiling Point	212 °F
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



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

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)	1.32 - 1.4
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 strong oxidizing agents. Avoid Strong reducing agents. This product may react with strong alkalies.

Incompatible Materials

Strong oxidizing and reducing agents. This material may violently react with alkalis.

Hazardous decomposition products

Nitrogen oxides (NO_x).

Thermal decomposition products

None identified.

Section 11 - TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity

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



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

Dermal LD50 Rabbit 2740 mg/kg

Manganese oxide (MnO) (1344-43-0)

Oral LD50 Mouse 1000 mg/kg

Product Toxicity Data

Acute Toxicity Estimate

Dermal	--
Inhalation - Vapor	--
Oral	--

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

No LOLI ecotoxicity data are available for this product's components.

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.



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

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. , Nitric acid.)

Hazard Class: 8

UN/NA #: UN1760

Packing Group: II

Required Label(s): Corrosive

TDG Information:

Shipping Name: CORROSIVE LIQUID, N.O.S. , (Contains: Phosphoric acid. , Nitric acid.)

Hazard Class: 8

UN#: UN1760

Packing Group: II

Required Label(s): Corrosive

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 (>=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.

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



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

OSHA (safety):	500 lb TQ (>=94.5% by weight)
SARA 304:	1000 lb EPCRA RQ

All components are on the U.S. EPA TSCA Inventory List. This product is in compliance with TSCA.

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
Water	7732-18-5	No	No	No	No	Yes
Phosphoric acid	7664-38-2	Yes	Yes	Yes	Yes	Yes
Nitric acid	7697-37-2	Yes	Yes	Yes	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, CN	VN (Draft)
No	Yes	Yes	Yes	No	No	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	No	Yes	No

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

Manganese oxide (MnO) (1344-43-0)

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



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

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

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

Nickel, inorganic compounds (Trade Secret)

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

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

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 1 Fire: 0 Reactivity: 0

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

NFPA Ratings

Health: 1 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



Safety Data Sheet

Material Name: E-Phos 630

SDS ID: EPI-0331c

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..