

Safety Data Sheet: CERTI-ETCH EF

Supersedes Date 08/16/2013

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CERTI-ETCH EF
Recommended use Metal adhesion promoter
Information on Manufacturer
CERTIFIED LABS, DIV. OF NCH CORP.
BOX 152170
IRVING, TEXAS 75015

Product Code 0605
Chemical nature Acidic Aqueous solution
Emergency Telephone Number
CHEMTREC® 800-424-9300
Telephone inquiry
972-579-2477

2. HAZARD IDENTIFICATION

Color Colorless

Physical State Liquid

Odor Mild Ether-like

GHS

Classification

Physical Hazards

Substances/mixtures corrosive to metal

Category 1

Health Hazard

Skin Corrosion/Irritation

Category 1

Serious Eye Damage/Eye Irritation

Category 1

Specific target organ systemic toxicity (single exposure)

Category 3

Specific target organ systemic toxicity (repeated exposure)

Category 2

Other hazards

None

Labeling

Signal Word

DANGER



Hazard Statements

H314 - Causes severe skin burns and eye damage

H336 - May cause drowsiness or dizziness

H373 - May cause damage to organs through prolonged or repeated exposure

H290 - May be corrosive to metals

Precautionary Statements

P280 - Wear protective gloves, protective clothing, eye protection and face protection.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P260 - Do not breathe mist or vapors.

P271 - Use in a well-ventilated area.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P332 + P313 - If skin irritation occurs, get medical attention.

P363 - Wash contaminated clothing before reuse

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a physician

P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P342 + P311 - If experiencing respiratory symptoms, call a physician

P301+ P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.

P406 - Store in a corrosion-resistant container.

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P390 - Absorb spillage to prevent damage

P501 - Dispose of contents and container in accordance with applicable regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Phosphoric acid	7664-38-2	10-30

Tripropylene glycol monomethyl ether	25498-49-1	7-13
Alcohols, C9-11, ethoxylated	68439-46-3	7-13

4. FIRST AID MEASURES

General advice	Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.
Skin Contact	Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.
Inhalation	Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention immediately.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Notes to physician	The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed.

5. FIRE-FIGHTING MEASURES

Flash Point	> 201 °F / > 94 °C	Method	Seta closed cup
Flammability Limits in Air % Hydrogen, by reaction with metals.		Upper	75
Suitable Extinguishing Media		Lower	4
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray. Carbon dioxide (CO ₂). Alcohol-resistant foam. Dry chemical.			
Specific hazards arising from the chemical			
Contact with metals liberates flammable hydrogen gas. Material can create slippery conditions.			
Protective Equipment and Precautions for Firefighters			
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.			
NFPA	Health 3	Flammability 1	Instability 0
HMIS	Health 3	Flammability 1	Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
Environmental Precautions	No special environmental precautions required.
Methods for Containment	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Methods for Cleaning Up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)
Neutralizing Agent	Neutralize with lime milk or soda and flush with plenty of water.

7. HANDLING AND STORAGE

Handling	Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.			
Storage	Keep containers tightly closed in a cool, well-ventilated place. Store in original container. Metal containers must be lined. Keep containers tightly closed in a dry, cool and well-ventilated place.			
Storage Temperature	Minimum	35 °F / 2 °C	Maximum	120 °F / 49 °C
Storage Conditions	Indoor	X	Outdoor	Heated Refrigerated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Phosphoric acid	TWA: 1 mg/m ³ STEL: 3 mg/m ³	TWA: 1 mg/m ³	1000 mg/m ³ STEL 3 mg/m ³ TWA: 1 mg/m ³

Engineering Measures	Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles. Face-shield.
Skin Protection	Wear suitable protective clothing, Impervious gloves.
Respiratory Protection	In case of insufficient ventilation wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations

Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Viscosity	Non viscous
Color	Colorless	Odor	Mild Ether-like
Odor Threshold	No data available	Appearance	Transparent
pH	0.4	Specific Gravity	1.126
Evaporation Rate	0.45 (Butyl acetate=1)	Percent Volatile (Volume)	89
VOC Content (%)	10	VOC Photoreactive (Y/N)	Yes
VOC Content (g/L)	113	Vapor Pressure	14.3 mmHg @ 70°F
Vapor Density	0.7	Solubility	Completely soluble
n-Octanol/Water Partition	No data available	Melting Point/Range	No data available
Decomposition Temperature	No data available	Boiling Point/Range	210 °F / 99 °C
Flammability (solid, gas)	No data available	Method	Seta closed cup
Flash Point	> 201 °F / > 94 °C		
Autoignition Temperature	No information available.		
Flammability Limits in Air %	Hydrogen, by reaction with metals.	Upper 75 Lower 4	

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	None known
Incompatible Products	Oxidizing agents, Strong bases, Powdered metals, Alcohols, Amines.
Hazardous Decomposition Products	Carbon oxides, Oxides of phosphorus, Hydrogen, by reaction with metals, Aldehydes, Ketones, Organic acids, Hydrocarbons.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

Oral LD50	No information available
Dermal LD50	No information available
Inhalation LC50	
Gas	No information available
Mist	No information available
Vapor	No information available

Principle Route of Exposure Skin contact, Eye contact, Inhalation.

Primary Routes of Entry Inhalation, Skin Absorption.

Acute Effects

Eyes	Corrosive to the eyes and may cause severe damage including blindness.
Skin	Causes skin burns. May be absorbed through the skin in harmful amounts.
Inhalation	Causes burns. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Ingestion	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Chronic Toxicity

Target Organ Effects Inhaled corrosive substances can lead to a toxic edema of the lungs. Kidney injury may occur.

Aggravated Medical Conditions

Skin disorders, Respiratory disorders, Kidney disorders, Neurological disorders.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Phosphoric acid	= 1530 mg/kg (Rat)	= 2740 mg/kg (Rabbit)	> 850 mg/m ³ (Rat) 1 h	no data available	no data available
Tripropylene glycol monomethyl ether	= 3184 mg/kg (Rat)	= 15440 mg/kg (Rabbit)	no data available	no data available	no data available
Alcohols, C9-11, ethoxylated	= 1400 mg/kg (Rat)	no data available	no data available	no data available	no data available

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Phosphoric acid	no data available	no data available	no data available	no data available	eyes,respiratory system,skin
Tripropylene glycol monomethyl ether	no data available	no data available	no data available	no data available	CNS, Kidney, Bladder

Carcinogenicity There are no known carcinogenic substances in this product.

12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Tripropylene glycol monomethyl ether	no data available	LC50 = 11619 mg/L Pimephales promelas 96 h	no data available	10: 48 h Daphnia magna mg/L EC50	N/A

Persistence and Degradability No information available.

Bioaccumulation No information available.

Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.

Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Phosphoric acid solution
Hazard Class 8
UN-No UN1805
Packing Group III
Reportable Quantity (RQ) Phosphoric acid, RQ kg= 3747.143
Description Phosphoric acid solution,8,UN1805,PG III,RQ

TDG

Hazard Class 8
UN-No UN1805
Packing Group III

ICAO

UN-No UN1805
Proper Shipping Name Phosphoric acid, liquid (Mixture)
Hazard Class 8
Packing Group III
Shipping Description Phosphoric acid, liquid,8,UN1805,PG III,Mixture

IATA

UN-No UN1805
Proper Shipping Name Phosphoric acid, liquid (Mixture)
Hazard Class 8
Packing Group III
ERG Code 8L
Shipping Description UN1805,Phosphoric acid, liquid,8,PG III,Mixture

IMDG/IMO

Proper Shipping Name Phosphoric acid, liquid (Mixture)
Hazard Class 8
UN-No UN1805
Packing Group III
EmS No. F-A, S-B
Shipping Description UN1805, Phosphoric acid, liquid,8,PG III,Mixture

15. REGULATORY INFORMATION

Inventories

TSCA Complies

DSL Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Tripropylene glycol monomethyl ether	25498-49-1	7-13	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Phosphoric acid	5000 lb	Not applicable

16. OTHER INFORMATION

Prepared By Adrienne McKee
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Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

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