

Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

#### **SECTION 1: IDENTIFICATION**

1.1 **GHS Product identifier:** Supra

Other means of identification:

Non-applicable

Recommended use of the chemical and restrictions on use:

Relevant uses: Fertilizer. For professional users only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Redox Chemicals LLC

130 South 100 West PO Box 129 83318 Burley - Idaho - Estados Unidos Phone: 208-678-2610 - Fax: 208-677-3609

casey@redoxchem.com https://www.redoxgrows.com/

1.4 **Emergency phone number:** 208-678-2610

### SECTION 2: HAZARD(S) IDENTIFICATION

#### Classification of the substance or mixture: 2.1

#### 29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Aquatic Acute 2: Hazardous to the aquatic environment, acute hazard, Category 2, H401

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Corr. 1B: Skin corrosion, Category 1B, H314

STOT RE 2: Specific target organ toxicity, repeated exposure, Category 2, H373

#### 2.2 Label elements:

#### 29 CFR 1910.1200:

#### Danger







#### **Hazard statements:**

Aguatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

#### **Precautionary statements:**

P264: Wash thoroughly after use.

P280: Wear protective gloves/face protection/protective clothing/protective footwear.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

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

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 poison center/doctor.

P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

#### 2.3 Hazards not otherwise classified (HNOC):

Non-applicable

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 **Substances:**

Non-applicable

Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) Page 1/12



#### **Supra**







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

#### 3.2 Mixtures:

Chemical description: Mixture of substances

#### Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of  $\S1910.1200$ . Therefore, in accordance with Appendix D to  $\S1910.1200$ , the product contains:

	Identification	Chemical name/Classification	Concentration
CAS:	7664-38-2	Phosphoric acid Acute Tox. 5: H303; Acute Tox. 5: H313; Skin Corr. 1B: H314 - Danger	<2.5 %
CAS:	1310-58-3	Potassium hydroxide Acute Tox. 4: H302; Skin Corr. 1A: H314 - Danger	<2.5 %
CAS:	7446-19-7	Zinc Sulfate Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318 - Danger	<2.5 %
CAS:	10028-22-5	Ferrous sulphate Acute Tox. 4: H302; Eye Irrit. 2A: H319; Skin Irrit. 2: H315 - Warning	<2.5 %
CAS:	7664-41-7	ammonia, anhydrous  Acute Tox. 3: H331; Aquatic Acute 1: H400; Flam. Gas 2: H221; Press. Gas: H280; Skin Corr. 1B: H314 -  Danger	<2.5 %
CAS:	7758-99-8	Copper Sulfate  Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318 - Danger	<2.5 %
CAS:	10034-96-5	Manganese sulphate Aquatic Acute 2: H401; Aquatic Chronic 2: H411; Eye Dam. 1: H318; STOT RE 2: H373 - Danger	<2.5 %

### 4.1 Description of necessary measures:

**SECTION 4: FIRST-AID MEASURES** 

Request medical assistance immediately, showing the SDS of this product.

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

#### By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

#### By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

#### By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

#### By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

#### 4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

#### 4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

### SECTION 5: FIRE-FIGHTING MEASURES

Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) Page 2/12



#### Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

### SECTION 5: FIRE-FIGHTING MEASURES (continued)

#### 5.1 Suitable (and unsuitable) extinguishing media:

#### Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

#### Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

#### 5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### 5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

#### **Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:

#### For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

#### For emergency responders:

See section 8.

#### 6.2 **Environmental precautions:**

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

#### 6.3 Methods and materials for containment and cleaning up:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

#### Reference to other sections: 6.4

See sections 8 and 13.

#### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Maintain order, cleanliness and destroy using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) Page 3/12

Supra



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Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

### SECTION 7: HANDLING AND STORAGE (continued)

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

#### 7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

#### 7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000):

Identification	Occupational exposure limits		
Phosphoric acid	8-hour TWA PEL		1 mg/m <sup>3</sup>
CAS: 7664-38-2	Ceiling Values - TWA PEL		
ammonia, anhydrous	8-hour TWA PEL	50 ppm	35 mg/m <sup>3</sup>
CAS: 7664-41-7	Ceiling Values - TWA PEL		

#### US. ACGIH Threshold Limit Values (2022):

Identification	Occupational exposure limits		
Phosphoric acid	TLV-TWA		1 mg/m³
CAS: 7664-38-2	TLV-STEL		3 mg/m <sup>3</sup>
Ferrous sulphate	TLV-TWA		1 mg/m³
CAS: 10028-22-5	TLV-STEL		2 mg/m <sup>3</sup>
ammonia, anhydrous	TLV-TWA	25 ppm	
CAS: 7664-41-7	TLV-STEL	35 ppm	
Manganese sulphate	TLV-TWA		0.02 mg/m <sup>3</sup>
CAS: 10034-96-5	TLV-STEL		

#### CALIFORNIA- TABLE AC-1 PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS:

Identification	Occupational exposure limits		
Phosphoric acid	PEL		1 mg/m³
CAS: 7664-38-2	STEL		3 mg/m <sup>3</sup>
Potassium hydroxide	PEL		2 mg/m <sup>3</sup>
CAS: 1310-58-3	STEL		2 mg/m <sup>3</sup>
Ferrous sulphate	PEL		1 mg/m <sup>3</sup>
CAS: 10028-22-5	STEL		
ammonia, anhydrous	PEL	25 ppm	18 mg/m <sup>3</sup>
CAS: 7664-41-7	STEL	35 ppm	27 mg/m <sup>3</sup>
Copper Sulfate	PEL		1 mg/m³
CAS: 7758-99-8	STEL		
Manganese sulphate	PEL		0.2 mg/m <sup>3</sup>
CAS: 10034-96-5	STEL		

### 8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

Always provide effective general and, when necessary, local exhaust ventilation to maintain the ambient workplace atmosphere below the exposure limits.. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) **Page 4/12** 



Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

#### B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
Mandatory hand protection	NON-disposable chemical protective gloves	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

#### D.- Eye and face protection

Pictogram	PPE	Remarks
Mandatory face protection	Face shield	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR)

#### E.- Bodily protection

Pictogram	PPE	Remarks
Mandatory complete body protection	Disposable clothing for protection against chemical risks	For professional use only. Clean periodically according to the manufacturer's instructions.
Mandatory foot protection	Safety footwear for protection against chemical risk	Replace boots at any sign of deterioration. Use foot protection in accordance with manufacturer's use limitations and OSHA standard 1910.136 (29CFR)

#### F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	<b>©</b> +	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
Emergency shower		Eyewash stations	

#### **Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

#### National volatile organic compound emission standards (40 CFR Part 59):

V.O.C.(weight-percent): 0 % weight V.O.C. at 68 °F: 0  $kg/m^3$  (0 g/L)

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

#### **Appearance:**

Physical state at 68 °F:

Appearance:

Color:

Liquid

Not available

Brown

 ${}^*\mathrm{Not}$  relevant due to the nature of the product, not providing information property of its hazards.

Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) Page 5/12



Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (conti	hued)
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Odor: Characteristic
Odour threshold: Non-applicable \*

Volatility:

Boiling point at atmospheric pressure:

Vapour pressure at 68 °F:

Vapour pressure at 122 °F:

Evaporation rate at 68 °F:

Non-applicable \*

Non-applicable \*

**Product description:** 

Density at 68 °F: Non-applicable \* Relative density at 68 °F: Non-applicable \* Dynamic viscosity at 68 °F: Non-applicable \* Kinematic viscosity at 68 °F: Non-applicable \* Kinematic viscosity at 104 °F: Non-applicable \* Concentration: Non-applicable \* pH: Non-applicable \* Vapour density at 68 °F: Non-applicable \* Partition coefficient n-octanol/water 68 °F: Non-applicable \* Solubility in water at 68 °F: Non-applicable \* Solubility properties: Non-applicable \* Non-applicable \* Decomposition temperature: Melting point/freezing point: Non-applicable \*

Flammability:

Flash Point: Non Flammable (>199.4 °F)

Flammability (solid, gas):

Autoignition temperature:

Lower flammability limit:

Non-applicable \*

Upper flammability limit:

Non-applicable \*

**Particle characteristics:** 

Median equivalent diameter: Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:

Oxidising properties:

Corrosive to metals:

Heat of combustion:

Aerosols-total percentage (by mass) of flammable

Non-applicable \*

Non-applicable \*

Non-applicable \*

components:
Other safety characteristics:

Surface tension at 68 °F:

Refraction index:

Non-applicable \*

Non-applicable \*

\*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) Page 6/12



## Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

### SECTION 10: STABILITY AND REACTIVITY (continued)

#### 10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

#### 10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

#### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Not applicable	Not applicable

#### 10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Not applicable	Not applicable	Precaution	Not applicable	Avoid alkalis or strong bases

#### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

#### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

#### **Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

- A- Ingestion (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
  - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.
- B- Inhalation (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
  - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract
- C- Contact with the skin and the eyes (acute effect):
  - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
  - Contact with the eyes: Produces serious eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
  - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

    IARC: Non-applicable
  - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
  - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- E- Sensitizing effects:
  - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
  - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- F- Specific target organ toxicity (STOT) single exposure:



## Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

- G- Specific target organ toxicity (STOT)-repeated exposure:
  - Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
  - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

#### Other information:

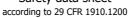
Non-applicable

#### Specific toxicology information on the substances:

Identification		А	Acute toxicity	
Phosphoric acid		LD50 oral	3500 mg/kg	Rat
CAS: 7664-38-2		LD50 dermal	2470 mg/kg	Rabbit
		LC50 inhalation	Non-applicable	
Potassium hydroxide		LD50 oral	388 mg/kg	Rat
CAS: 1310-58-3		LD50 dermal	Non-applicable	
		LC50 inhalation	Non-applicable	
Copper Sulfate		LD50 oral	482 mg/kg	Rat
CAS: 7758-99-8		LD50 dermal	Non-applicable	
		LC50 inhalation	Non-applicable	
Ferrous sulphate		LD50 oral	500 mg/kg (ATEi)	
CAS: 10028-22-5		LD50 dermal	Non-applicable	
		LC50 inhalation	Non-applicable	
Zinc Sulfate		LD50 oral	500 mg/kg (ATEi)	
CAS: 7446-19-7		LD50 dermal	Non-applicable	
		LC50 inhalation	Non-applicable	
ammonia, anhydrous		LD50 oral	Non-applicable	
CAS: 7664-41-7		LD50 dermal	Non-applicable	
		LC50 inhalation	3 mg/L (ATEi)	

Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) Page 8/12

## Safety data sheet





#### Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

#### Acute toxicity:

Identification		Concentration	Species	Genus
Potassium hydroxide	LC50	80 mg/L (48 h)	Gambussia afinis	Fish
CAS: 1310-58-3	EC50	Non-applicable		
	EC50	Non-applicable		
Zinc Sulfate	LC50	0.43 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: 7446-19-7	EC50	Non-applicable		
	EC50	Non-applicable		
ammonia, anhydrous	LC50	>0.1 - 1 (96 h)		Fish
CAS: 7664-41-7	EC50	>0.1 - 1 (48 h)		Crustacean
	EC50	>0.1 - 1 (72 h)		Algae
Copper Sulfate	LC50	0.81 mg/L (96 h)	Cyprinus carpio	Fish
CAS: 7758-99-8	EC50	Non-applicable		
	EC50	Non-applicable		
Manganese sulphate CAS: 10034-96-5	LC50	>1 - 10 (96 h)		Fish
	EC50	>1 - 10 (48 h)		Crustacean
	EC50	>1 - 10 (72 h)		Algae

#### **Chronic toxicity:**

Identification		Concentration	Species	Genus
Zinc Sulfate	NOEC	0.44 mg/L	Oncorhynchus mykiss	Fish
CAS: 7446-19-7	NOEC	Non-applicable		

#### 12.2 Persistence and degradability:

Not available

#### 12.3 Bioaccumulative potential:

Not available

#### 12.4 Mobility in soil:

Not available

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

#### Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as nondangerous residue. Waste should not be disposed of to drains. See epigraph 6.2.

### Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

#### **SECTION 14: TRANSPORT INFORMATION**

### Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) Page 9/12



### Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

### SECTION 14: TRANSPORT INFORMATION (continued)



**14.1 UN number:** UN1760

**14.2 UN proper shipping name:** CORROSIVE LIQUID, N.O.S. (Phosphoric acid; Zinc Sulfate)

14.3 Transport hazard class(es): 8

 Labels: 8

 14.4 Packing group, if applicable: II
 14.5 Marine pollutant: Yes

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Physico-Chemical properties: see section 9

Limited quantities: 1 L

Under 49 CFR 171.4, Except when transporting aboard a vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicles, rail cars, and aircraft

14.7 Transport in bulk (according Non-applicable to Annex II of MARPOL

73/78 and the IBC Code):

#### Transport of dangerous goods by sea:

With regard to IMDG 39-18:

**14.1 UN number:** UN1760

**14.2 UN proper shipping name:** CORROSIVE LIQUID, N.O.S. (Phosphoric acid; Zinc Sulfate)

14.3 Transport hazard class(es): 8Labels: 814.4 Packing group, if applicable: II

14.5 Marine pollutant:

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Yes

Special regulations: 274
EmS Codes: F-A, S-B
Physico-Chemical properties: see section 9

Limited quantities: 1 L

Segregation group: Non-applicable **14.7 Transport in bulk (according** Non-applicable

to Annex II of MARPOL 73/78 and the IBC Code):

#### Transport of dangerous goods by air:

With regard to IATA/ICAO 2022:



**14.1 UN number:** UN1760

**14.2 UN proper shipping name:** CORROSIVE LIQUID, N.O.S. (Phosphoric acid; Zinc Sulfate)

14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: II

14.5 Marine pollutant:

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Physico-Chemical properties: see section 9

**14.7 Transport in bulk (according** Non-applicable

to Annex II of MARPOL 73/78 and the IBC Code):

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) **Page 10/12** 

# Redox

## Safety data sheet according to 29 CFR 1910.1200

#### Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

#### SECTION 15: REGULATORY INFORMATION (continued)

Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372): Zinc Sulfate; ammonia, anhydrous; Copper Sulfate; Manganese sulphate

California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable

The Toxic Substances Control Act (TSCA): Phosphoric acid; Potassium hydroxide; ammonia, anhydrous

Massachusetts RTK - Substance List: Phosphoric acid; Potassium hydroxide; Zinc Sulfate; Ferrous sulphate; ammonia,

anhydrous; Copper Sulfate; Manganese sulphate

New Jersey Worker and Community Right-to-Know Act: Phosphoric acid; Potassium hydroxide; Zinc Sulfate; ammonia, anhydrous; Copper Sulfate; Manganese sulphate

New York RTK - Substance list: Phosphoric acid; Potassium hydroxide; Zinc Sulfate; ammonia, anhydrous; Copper Sulfate; Manganese sulphate

Pennsylvania Worker and Community Right-to-Know Law: Phosphoric acid; Potassium hydroxide; Zinc Sulfate; Ferrous sulphate; ammonia, anhydrous; Copper Sulfate; Manganese sulphate

CANADA-Domestic Substances List (DSL): Phosphoric acid; Potassium hydroxide; Zinc Sulfate; ammonia, anhydrous

CANADA-Non-Domestic Substances List (NDSL): Non-applicable

NTP (National Toxicology Program): Non-applicable

Minnesota - Hazardous substances ERTK: Phosphoric acid; Potassium hydroxide; Ferrous sulphate; ammonia, anhydrous; Manganese sulphate

Rhode Island - Hazardous substances RTK: Phosphoric acid ; Potassium hydroxide ; Zinc Sulfate ; Ferrous sulphate ; ammonia, anhydrous ; Copper Sulfate ; Manganese sulphate

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable

Hazardous Air Pollutants (Clean Air Act): Manganese sulphate

CALIFORNIA LABOR CODE - The Hazardous Substances List: Phosphoric acid; Potassium hydroxide; Zinc Sulfate; Ferrous sulphate; ammonia, anhydrous; Copper Sulfate; Manganese sulphate

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantities: Phosphoric acid (5000 pounds); Potassium hydroxide (1000 pounds); Zinc Sulfate (1 pounds); Ferrous sulphate (1000 pounds); ammonia, anhydrous (100 pounds); Copper Sulfate (1 pounds); Manganese sulphate (1 pounds)

#### Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

#### Other legislation:

Take into consideration other applicable federal, state, and local laws and local regulations.

#### SECTION 16: OTHER INFORMATION

#### Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

#### Texts of the legislative phrases mentioned in section 2:

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H401: Toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

H373: May cause damage to organs through prolonged or repeated exposure.

#### Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:



### Supra







Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1)

### SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 3: H331 - Toxic if inhaled. Acute Tox. 4: H302 - Harmful if swallowed.

Acute Tox. 5: H303 - May be harmful if swallowed. Acute Tox. 5: H313 - May be harmful in contact with skin.

Aquatic Acute 1: H400 - Very toxic to aquatic life. Aquatic Acute 2: H401 - Toxic to aquatic life.

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects. Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.

Eye Dam. 1: H318 - Causes serious eye damage. Eye Irrit. 2A: H319 - Causes serious eye irritation.

Flam. Gas 2: H221 - Flammable gas.

Press. Gas: H280 - Contains gas under pressure, may explode if heated. Skin Corr. 1A: H314 - Causes severe skin burns and eye damage. Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

Skin Irrit. 2: H315 - Causes skin irritation.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

#### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

#### Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

#### **Abbreviations and acronyms:**

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor LD50: Lethal Dose 50 CL50: Lethal Concentration 50

EC50: Effective concentration 50 Log-POW: Octanol-water partition coefficient Koc: Partition coefficient of organic carbon

IARC: International Agency for Research on Cancer

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Date of compilation: 3/16/2022 Revised: 6/1/2022 Version: 2 (Replaced 1) **Page 12/12**