Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Patina Blue Green Verde 445 - New**

Synonym(s) • Blue Green Verde 445

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Metal coloring solution

Details of the supplier of the safety data sheet

Manufacturer • Triple-S Chemical Products, Inc.
3464 Union Pacific Avenue
Los Angeles, CA 90023
United States

Telephone (General) • (323) 261-7301

Emergency telephone number

Toll free • (800) 535-5053 - INFOTRAC
Outside USA • (352) 323-3500 - INFOTRAC

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012
- Skin Corrosion 1
- Serious Eye Damage 1

Label elements

OSHA HCS 2012

DANGER



Hazard statements • Causes severe skin burns and eye damage.
Causes serious eye damage

Precautionary statements

Prevention • Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist, vapours and/or spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
In case of inadequate ventilation wear respiratory protection.

Response • IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Specific treatment, see supplemental first aid information. Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Immediately call a Poison center or a doctor/physician. Rinse mouth. Do NOT induce vomiting.

Storage/Disposal • Store locked up in a safe, cool location. Refer to Section 7 for more complete storage instructions. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS 2015

Classification of the substance or mixture

WHMIS 2015 • Skin Corrosion 1
Serious Eye Damage 1

Label elements

WHMIS 2015

DANGER



Hazard statements • Causes severe skin burns and eye damage.
Causes serious eye damage

Precautionary statements

Prevention • Obtain special instructions before use.
Do not breathe mist, vapors, and/or spray.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response • IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Specific treatment, see supplemental first aid information. Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Immediately call a Poison center or a doctor/physician. Rinse mouth. Do NOT induce vomiting.

Storage/Disposal • Store locked up in a safe, cool location. Refer to Section 7 for more complete storage instructions. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

WHMIS 2015 • In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances • Material does not meet the criteria of a substance.

Mixtures

Composition					
Chemical Name	**Identifiers**	**%**	**LD50/LC50**	**Classifications According to Regulation/Directive**	**Comments**
Nitric acid, copper(2+) salt	**CAS:**3251-23-8	< 8%	NDA	**OSHA HCS 2012:** Acute Tox. 4 (Orl); Skin Irrit. 2; Eye Irrit. 2 **WHMIS 2015:** Acute Tox. 4 (Orl); Skin Irrit. 2; Eye Irrit. 2	NDA
Sodium chloride	**CAS:**7647-14-5	< 6%	Ingestion/Oral-Rat LD50 • 3000 mg/kg	**OSHA HCS 2012:** Eye Irrit. 2 **WHMIS 2015:** Eye Irrit. 2	NDA
Ammonium chloride	**CAS:**12125-02-9	< 6%	Ingestion/Oral-Rat LD50 • 1650 mg/kg	**OSHA HCS 2012:** Acute Tox. 4 (Orl); Eye Irrit. 2; STOT SE 3: Resp. Irrit. (Inhl) **WHMIS 2015:** Acute Tox. 4 (Orl); Eye Irrit. 2; STOT SE 3: Resp. Irrit. (Inhl)	NDA
Selenium(IV) dioxide (1:2)	**CAS:**7446-08-4	< 2%	Ingestion/Oral-Rat LD50 • 68100 µg/kg	**OSHA HCS 2012:** Acute Tox. 3 (Orl); Skin Corr. 1; Eye Dam. 1 **WHMIS 2015:** Acute Tox. 3 (Orl); Skin Corr. 1; Eye Dam. 1	NDA
Phosphoric acid	**CAS:**7664-38-2	< 2%	Ingestion/Oral-Rat LD50 • 1.25 g/kg	**OSHA HCS 2012:** Acute Tox. 4 (Orl); Skin Corr. 1C; Eye Dam. 1 **WHMIS 2015:** Acute Tox. 4 (Orl); Skin Corr. 1C; Eye Dam. 1	NDA
Acetic acid	**CAS:**64-19-7	< 2%	Ingestion/Oral-Rat LD50 • 3310 mg/kg Skin-Rabbit LD50 • 1060 mg/kg Inhalation-Rat LC50 • 11000 mg/m³ 4 Hour(s)	**OSHA HCS 2012:** Flam. Liq. 3; Acute Tox. 4 (Skn); Acute Tox. 4 (Inhl); Skin Corr. 1B; Eye Dam. 1 **WHMIS 2015:** Flam. Liq. 3; Acute Tox. 4 (Skn); Acute Tox. 4 (Inhl); Skin Corr. 1B; Eye Dam. 1	NDA
Zinc chloride	**CAS:**7646-85-7	< 1%	Ingestion/Oral-Rat LD50 • 350 mg/kg	**OSHA HCS 2012:** Acute Tox. 4 (orl); Skin Corr. 1C; Eye Dam. 1; STOT SE 3: Resp. Irrit. (inhl) **WHMIS 2015:** Acute Tox. 4 (oral); Skin Corr. 1C; Eye Dam. 1; STOT SE 3: Resp. Irrit. (inhl)	NDA

Remaining composition is not hazardous according to OSHA 2012 and WHMIS 2015.

Section 4: First-Aid Measures

Description of first aid measures

Inhalation • Move victim to fresh air. Administer oxygen if breathing is difficult. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give artificial respiration if victim is not breathing. Get medical attention immediately.

Skin • For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Get medical attention immediately.

Eye • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. Get medical attention immediately.

Ingestion • Immediately call a poison control center or a doctor/physician. Do NOT induce vomiting. If swallowed, rinse mouth with water (only if the person is conscious). Do not use mouth-to-mouth method if victim ingested the substance. Give plenty of water to drink. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.

Most important symptoms and effects, both acute and delayed

• Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician • All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • LARGE FIRES: Dry chemical, CO2, alcohol-resistant foam or water spray. SMALL FIRES: Dry chemical, CO2 or water spray.

Unsuitable Extinguishing Media • No data available

Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards • Containers may explode when heated.

Hazardous Combustion Products • No data available

Advice for firefighters

• Firefighters should wear appropriate protective clothing/equipment including a NIOSH/MSHA approved or equivalent positive pressure self-contained breathing apparatus (SCBA) and protective clothing. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible. It may provide little or no thermal protection.

SMALL FIRES: Move containers from fire area if you can do so without risk.

Fires should be fought from a safe distance. Prevent fire control runoff from entering sewers, drains, drinking water supply and/or natural waterways.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions • Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Do not get water inside container.

Environmental precautions

• Avoid run off to sewers, drains, drinking water supply and/or natural waterways.

Methods and material for containment and cleaning up

Containment/Clean-up Measures • SMALL SPILLS: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
LARGE SPILLS: Isolate spill w/ minimal risk. Dike far ahead of liquid spill for later disposal. Recover as much liquid as possible & collect in acid resistant containers. Use absorbent to pick up residue.

Section 7 - Handling and Storage

Precautions for safe handling

Handling • Handle and open container with care. Use only with adequate ventilation. Use caution when combining with water; DO NOT add water to corrosive liquid, ALWAYS add corrosive liquid to water while stirring to prevent release of heat, steam and fumes. Wear appropriate personal protective equipment, avoid direct

contact. Do not breathe mists, vapours and/or spray. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities

Storage • Use & store in acid resistant containers in a cool, dry, well ventilated location (e.g. local exhaust ventilation, fans) away from heat & direct sunlight. Avoid temperatures above 100° F Keep container tightly closed. Empty containers may retain hazardous product residue. Do not reuse empty containers for other purposes.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines				
	Result	**ACGIH**	**NIOSH**	**OSHA**
Zinc chloride (7646-85-7)	TWAs	1 mg/m3 TWA (fume)	1 mg/m3 TWA (fume)	1 mg/m3 TWA (fume)
	STELs	2 mg/m3 STEL (fume)	2 mg/m3 STEL (fume)	Not established
Acetic acid (64-19-7)	TWAs	10 ppm TWA	10 ppm TWA; 25 mg/m3 TWA	10 ppm TWA; 25 mg/m3 TWA
	STELs	15 ppm STEL	15 ppm STEL; 37 mg/m3 STEL	Not established
Phosphoric acid (7664-38-2)	TWAs	1 mg/m3 TWA	1 mg/m3 TWA	1 mg/m3 TWA
	STELs	3 mg/m3 STEL	3 mg/m3 STEL	Not established
Ammonium chloride (12125-02-9)	STELs	20 mg/m3 STEL (fume)	20 mg/m3 STEL (fume)	Not established
	TWAs	10 mg/m3 TWA (fume)	10 mg/m3 TWA (fume)	Not established
Nitric acid, copper(2+) salt (3251-23-8)	TWAs	1 mg/m3 TWA (dust and mist, as Cu) *as Copper compounds*	1 mg/m3 TWA (dust and mist, as Cu) *as Copper compounds*	Not established

Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Pictograms

- 

Respiratory

- Wear a properly fitted respirator with acid gas canisters and mist/particulate filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator w/ full or ½ face N95 cartridge masks if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear tight fitting chemical splash safety goggles to protect eyes. A protective face shield is recommended.

Skin/Body

- Wear chemical/acid resistant (neoprene) impervious gloves to protect hands. Wear a chemical/acid resistant rubber apron, rubber jacket and boots and/or protective coveralls to protect skin.

General Industrial Hygiene Considerations

- Minimize exposure in accordance with good hygiene practice. Wash with soap and water after handling product.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste. Provide eyewash stations close to work area and adequate ventilation when using product.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
NIOSH = National Institute of Occupational Safety and Health
OSHA = Occupational Safety and Health Administration
STEL = Short Term Exposure Limits are based on 15-minute exposures
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear turquoise liquid with no odor.
Color	Clear turquoise.	Odor	No odor.
Odor Threshold	No data available		
General Properties			
Boiling Point	> 212 °F(> 100 °C)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	1.3 to 1.5
Specific Gravity/Relative Density	1 to 1.5 Water=1	Water Solubility	Soluble 100 %
Viscosity	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	< 1 Air=1
Evaporation Rate	No data available	VOC (Wt.)	0 %
VOC (Vol.)	0 %		
Flammability			
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Avoid high temperatures and incompatible materials.

Incompatible materials

- Incompatible materials: oxidizers, strong acids, water-reactive substances & metals such as aluminum, silver & zinc.

Hazardous decomposition products

- Thermal decomposition may produce carbon, potassium, sulfur & nitrogen oxides.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
Acetic acid (< 2%)	64-19-7	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 3310 mg/kg; Ingestion/Oral-Human TDLo • 1470 µg/kg; *Gastrointestinal*:**Change in structure or function of esophagus**; *Gastrointestinal*:**Ulceration or bleeding from small intestine**; *Gastrointestinal*:**Ulceration or bleeding from large intestine**; Inhalation-Rat LC50 • 11000 mg/m³ 4 Hour(s); Inhalation-Mouse TCLo • 12 ppm 6 Minute(s); *Lungs, Thorax, or*

Acetic acid (< 2%) (cont'd)		*Respiration*:**Respiratory depression**; Skin-Rabbit LD50 • 1060 mg/kg; Skin-Rat TDLo • 0.25 mg/kg; *Gastrointestinal*:**Ulceration or bleeding from dlodenum**; **Irritation:** Eye-Rabbit • 5 mg 30 Second(s)-Rinse • Mild irritation; Skin-Human • 50 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 525 mg-Open • Severe irritation; **Multi-dose Toxicity:** Inhalation-Rat TCLo • 5070 µg/m³ 24 Hour(s) 95 Day(s)-Continuous; *Kidney, Ureter, and Bladder*:**Other changes in urine composition**; *Blood*:**Changes in leucocyte (WBC) count**; *Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels*:**True cholinesterase**; **Mutagen:** Other mutation test systems • Skin-Mouse • 1201 mg/kg; Unscheduled DNA synthesis • Skin-Mouse • 79279 µg/kg; **Tumorigen / Carcinogen:** Ingestion/Oral-Rat TDLo • 5760 mg/kg 32 Week(s)-Intermittent; *Tumorigenic*:**Equivocal tumorigenic agent by RTECS criteria**; *Gastrointestinal*:**Tumors**; *Tumorigenic*:**Facilitates action of known carcinogen**
Nitric acid, copper(2+) salt (< 8%)	3251-23-8	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 794 mg/kg; *Behavioral*:**Somnolence (general depressed activity)**; *Behavioral*:**Convulsions or effect on seizure threshold**; **Irritation:** Eye-Rabbit • 100 mg 4 Second(s)-Rinse • Severe irritation; Skin-Rabbit • 500 mg • Severe irritation
Sodium chloride (< 6%)	7647-14-5	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 3000 mg/kg; Ingestion/Oral-Rat TDLo • 1.43 mg/kg; *Gastrointestinal*:**Ulceration or bleeding from stomach**; **Irritation:** Eye-Rabbit • 10 mg • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; **Mutagen:** Unscheduled DNA synthesis • Ingestion/Oral-Rat • 16800 mg/kg 4 Week(s)-Continuous; Micronucleus test • Ingestion/Oral-Rat • 2 pph 14 Day(s)
Ammonium chloride (< 6%)	12125-02-9	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 1650 mg/kg; **Irritation:** Eye-Rabbit • 100 mg • Severe irritation
Phosphoric acid (< 2%)	7664-38-2	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 1.25 g/kg; *Lungs, Thorax, or Respiration*:**Acute pulmonary edema**; *Liver*:**Changes in liver weight**
Selenium(IV) dioxide (1:2) (< 2%)	7446-08-4	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 68100 µg/kg; *Behavioral*:**Somnolence (general depressed activity)**; *Behavioral*:**Convulsions or effect on seizure threshold**
Zinc chloride (< 1%)	7646-85-7	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 1100 mg/kg; **Irritation:** Skin-Rabbit • 1 % 5 Day(s)-Open • Severe irritation; **Multi-dose Toxicity:** Ingestion/Oral-Mouse TDLo • 109.2 mg/kg 20 Week(s)-Intermittent; *Behavioral*:**Euphoria**; *Blood*:**Normocytic anemia**; *Related to Chronic Data*:**Death in the Other Multiple Dose data type field**; Ingestion/Oral-Mouse TDLo • 76.44 mg/kg 14 Week(s)-Intermittent; *Blood*:**Normocytic anemia**; *Related to Chronic Data*:**Death in the Other Multiple Dose data type field**; **Mutagen:** Cytogenetic analysis • Ingestion/Oral-Mouse • 18 g/kg 30 Day(s)-Continuous; **Reproductive:** Ingestion/Oral-Mouse TDLo • 186 mg/kg (98D male/98D pre-3W post); *Reproductive Effects:Effects on Fertility*:**Female fertility index**; *Reproductive Effects:Specific Developmental Abnormalities*:**Blood and lymphatic system**; *Reproductive Effects:Specific Developmental Abnormalities*:**Urogenital system**; Ingestion/Oral-Mouse TDLo • 456 mg/kg (70D male/70D pre-21D post); *Reproductive Effects:Effects on Fertility*:**Female fertility index**; *Reproductive Effects:Effects on Fertility*:**Male fertility index**; *Reproductive Effects:Effects on Fertility*:**Litter size (e.g., # fetuses per litter; measured before birth)**

GHS Properties	Classification
Acute toxicity	**OSHA HCS 2012**•No data available **WHMIS 2015**•No data available
Skin corrosion/Irritation	**OSHA HCS 2012**•Skin Corrosion 1 **WHMIS 2015**•Skin Corrosion 1
Serious eye damage/Irritation	**OSHA HCS 2012**•Serious Eye Damage 1 **WHMIS 2015**•Serious Eye Damage 1
Skin sensitization	**OSHA HCS 2012**•No data available **WHMIS 2015**•No data available
Respiratory sensitization	**OSHA HCS 2012**•No data available **WHMIS 2015**•No data available
Aspiration Hazard	**OSHA HCS 2012**•No data available **WHMIS 2015**•No data available
Carcinogenicity	**OSHA HCS 2012**•No data available **WHMIS 2015**•No data available
Germ Cell Mutagenicity	**OSHA HCS 2012**•No data available **WHMIS 2015**•No data available
Toxicity for Reproduction	**OSHA HCS 2012**•No data available **WHMIS 2015**•No data available

STOT-SE	**OSHA HCS 2012**•No data available **WHMIS 2015**•No data available
STOT-RE	**OSHA HCS 2012**•No data available **WHMIS 2015**•No data available

Potential Health Effects

Inhalation

Acute (Immediate) • May cause corrosive burns - irreversible damage.

Chronic (Delayed) • Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

Skin

Acute (Immediate) • Causes severe skin burns and eye damage.

Chronic (Delayed) • Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Eye

Acute (Immediate) • Causes serious eye damage.

Chronic (Delayed) • Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

Ingestion

Acute (Immediate) • May cause irreversible damage to mucous membranes.

Chronic (Delayed) • Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

Key to abbreviations

LC = Lethal Concentration
LD = Lethal Dose
TC = Toxic Concentration
TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

• Non-mandatory section - information about this substance not compiled for this reason.

Persistence and degradability

• Non-mandatory section - information about this substance not compiled for this reason.

Bioaccumulative potential

• Non-mandatory section - information about this substance not compiled for this reason.

Mobility in Soil

• Non-mandatory section - information about this substance not compiled for this reason.

Other adverse effects

• Non-mandatory section - information about this substance not compiled for this reason.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN1760	Corrosive Liquids, N.O.S., (Phosphoric Acid)	8	III	NDA
TDG	UN1760	CORROSIVE LIQUIDS, N.O.S., (Phosphoric Acid)	8	III	NDA
IMO/IMDG	UN1760	CORROSIVE LIQUIDS, N.O.S., (Phosphoric Acid)	8	III	NDA
IATA/ICAO	UN1760	Corrosive Liquids, N.O.S., (Phosphoric Acid)	8	III	NDA

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available.

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Inventory				
Component	**CAS**	**Canada DSL**	**Canada NDSL**	**TSCA**
Acetic acid	64-19-7	Yes	No	Yes
Ammonium chloride	12125-02-9	Yes	No	Yes
Nitric acid, copper(2+) salt	3251-23-8	Yes	No	Yes
Phosphoric acid	7664-38-2	Yes	No	Yes
Selenium(IV) dioxide (1:2)	7446-08-4	Yes	No	Yes
Sodium chloride	7647-14-5	Yes	No	Yes
Zinc chloride	7646-85-7	Yes	No	Yes

Canada

Labor

Canada - WHMIS 1988 - Classifications of Substances

•Acetic acid	64-19-7	B3, E (including 10-80% [Available data does not allow a precise evaluation of the threshold concentration from which solutions meet the B3 criterion], >80%); D2B (3-10%)
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	E (including 5-35% in aqueous solution, 35% aqueous solution 35-80%, 85% or less)
•Zinc chloride	7646-85-7	E
•Ammonium chloride	12125-02-9	D2B
•Sodium chloride	7647-14-5	Uncontrolled product according to WHMIS classification criteria
•Selenium(IV) dioxide (1:2)	7446-08-4	E

Canada - WHMIS 1988 - Ingredient Disclosure List

•Acetic acid	64-19-7	1 %
•Nitric acid, copper(2+) salt	3251-23-8	1 %
•Phosphoric acid	7664-38-2	1 %
•Zinc chloride	7646-85-7	1 %
•Ammonium chloride	12125-02-9	1 %
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	1 %

Environment

Canada - CEPA - Priority Substances List

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

•Acetic acid	64-19-7	5000 lb final RQ; 2270 kg final RQ
•Nitric acid, copper(2+) salt	3251-23-8	100 lb final RQ; 45.4 kg final RQ
•Phosphoric acid	7664-38-2	5000 lb final RQ; 2270 kg final RQ
•Zinc chloride	7646-85-7	1000 lb final RQ; 454 kg final RQ
•Ammonium chloride	12125-02-9	5000 lb final RQ; 2270 kg final RQ
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	10 lb final RQ; 4.54 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed

•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

•Acetic acid	64-19-7	Not Listed

•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Female		
•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
•Acetic acid	64-19-7	Not Listed
•Nitric acid, copper(2+) salt	3251-23-8	Not Listed
•Phosphoric acid	7664-38-2	Not Listed
•Zinc chloride	7646-85-7	Not Listed
•Ammonium chloride	12125-02-9	Not Listed
•Sodium chloride	7647-14-5	Not Listed
•Selenium(IV) dioxide (1:2)	7446-08-4	Not Listed

Section 16 - Other Information

Revision Date • 03/December/2018

Preparation Date • 11/November/2011

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Key to abbreviations

NDA = No Data Available