

Versa Etch 01

Version 1

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SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name (as labeled):	Versa Etch 01
Synonyms:	N/A
CAS No:	Mixture
1.2 Product Use:	Surface Retarder
1.3 Company Name:	SpecChem
Company Address:	1511 Baltimore Ave; Suite 600
Company Address Cont:	Kansas City, MO 64108
Business Phone:	(816) 968-5600
Website:	www.specchemllc.com
1.4 Emergency Telephone Number:	Chemtrec: (800) 424-9300
Date of Last Revision:	July 1, 2018
Date of Current Revision:	December 11, 2020

SECTION 2 – HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids: Category 2
Acute oral toxicity: Category 4
Acute dermal toxicity: Category 4
Serious Eye Damage/Eye Irritation: Category 2A
Specific target organ toxicity – (single exposure): Category 3
Target Organs – Kidney, Liver.

Label Elements

Signal Word

Danger

Hazard Statements

Causes serious eye damage
Highly flammable liquid and vapour
May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure
Harmful if swallowed or in contact with skin



EU and GHS Symbols

Precautionary Statements
Prevention

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Wash face, hands, and any exposed skin thoroughly after handling
 Do not eat, drink, or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat, hot surfaces, open flames, sparks. – No smoking.
 Keep container tightly closed.
 Take precautionary measures against static discharge.
 Use only non-sparking tools.
 Use explosion-proof electrical, lighting, ventilating equipment

Response

Get medical attention/advice if you feel unwell

Skin

IF ON SKIN: Wash with plenty of soap and water
 Call a POISON CENTER or doctor/physician if you feel unwell
 Take off contaminated clothing immediately and wash contaminated clothing before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	WT%	CAS No.	EINECS No.	Hazard Classification
Oxalic acid	1-5%	144-62-7	205-634-3	Acute Tox. 4
Propylene Glycol	1-5%	57-55-6	200-338-0	None
Dimethyl Ketone	1-5%	67-64-1	200-662-2	Flam Liq. 2, Eye Irrit. 2A, STOT SE 3
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

Note: All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures:

Eye Contact: Flush with large amounts of water. Remove contact lenses if easy to do so. Continue rinsing. If signs/symptoms develop, get medical attention.

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Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion: Clean mouth with water and drink afterwards plenty of water. Do not give milk/oil to drink. Do not induce vomiting. Give activated charcoal. Get medical attention if symptoms occur.

4.2 Symptoms and Effects Both Acute and Delayed:

Symptoms/effects: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation: EXPOSURE TO HIGH CONCENTRATIONS: Feeling of weakness. Irritation of the respiratory tract. Nausea. Vomiting. Headache. Central nervous system depression. Dizziness. Narcosis. Excited/restless. Drunkenness. Disturbed motor response. Respiratory difficulties. Disturbances of consciousness.

Symptoms/effects after skin contact: ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

Symptoms/effects after eye contact: Irritation of the eye tissue.

4.3 Recommendations to Physicians:

Obtain medical assistance.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Fire Extinguishing Materials:

Suitable extinguishing media: Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (alcohol-resistant). Water spray if puddle cannot expand.

Unsuitable extinguishing media: Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

5.2 Unusual Fire and Explosion Hazards:

Fire hazard: DIRECT FIRE HAZARD. Highly flammable liquid and vapour. Gas/vapor flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Gas/vapor spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard: DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. Heat may cause pressure rise in tanks/drums: explosion risk. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".

Reactivity: Violent to explosive reaction with many compounds. Prolonged storage: on exposure to light: release of harmful gases/vapours.

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5.3 Special Fire-Fighting Procedures:

Firefighting instructions: Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion.

Protection during firefighting: Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.

6.2 Environmental Precautions:

Do not discharge to streams, ponds, lakes or sewers. Avoid subsoil penetration. For larger, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3 Spill and Leak Response:

Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Soak up with sawdust, sand, oil dry or other inert absorbent material. Pick up and transfer to properly labelled containers.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Do not use sparking tools. Ground containers when transferring material. Avoid formation of respirable particles. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling. Wash contaminated clothing before re-use. ***Agitate thoroughly before use***

7.2 Storage and Handling Practices:

Storage conditions: Keep only in the original container in a cool, well ventilated place away from : Heat sources, Direct sunlight, incompatible materials. Keep container closed when not in use.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

Storage temperature: 15 - 20 °C

Heat-ignition: KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Prohibitions on mixed storage: KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. strong acids. (strong) bases. halogens. amines.

Storage area: Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. Meet the legal requirements.

Special rules on packaging: SPECIAL REQUIREMENTS: closing. with pressure relief valve. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials: SUITABLE MATERIAL: steel. stainless steel. carbon steel. aluminium. iron. copper. nickel. bronze. glass. MATERIAL TO AVOID: synthetic material.

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SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Exposure Parameters:**

Ingredients	CAS No.	OSHA PEL	NIOSH PEL
Oxalic Acid	144-62-7	(Vacated) TWA: 1 mg/m ³ (Vacated) STEL: 2 mg/m ³ TWA: 1 mg/m ³	IDLH: 500 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³
Dimethyl Ketone	67-64-1	TWA: 2400mg/m ³	TWA: 590mg/m ³

8.2 Exposure Controls:**Ventilation and Engineering Controls:**

Local ventilation must be used during application. Use suitable ventilation to remove mists or vapors during spray or other applications.

Respiratory Protection:

Wear suitable personal respirator and protective suit when spray or mist occurs.

Eye Protection:

Wear safety glasses with side shields or goggles

Hand Protection:

Wear protective gloves.

Body Protection:

Rubber apron, boots or coveralls as necessary to prevent skin contact.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on Basic Physical and Chemical Properties:**

Appearance (Physical State and Color): White Liquid

Odor: Aromatic Odour

Odor Threshold: No data available

pH: 1-2

Melting/Freezing Point: No data available

Boiling Point: 100°C (212°F)

Flash Point: No data available

Evaporation Rate: No data available

Flammability (Solid; Gas): Not applicable

Vapor Pressure (mm Hg @ 20°C (68° F): No data available

Vapor Density: No data available

Relative Density: No data available

Specific Gravity: 1.03

Solubility in Water: Soluble in water

Weight per Gallon: 8.5 - 8.7

Partition Coefficient (n-octanol/water): No data available

Auto-Ignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

9.2 Other Information: No data available

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SECTION 10 – STABILITY AND REACTIVITY

- 10.1 Reactivity:** Violent to explosive reaction with many compounds. Prolonged storage: on exposure to Light: release of harmful gases/vapours.
- 10.2 Stability:** Unstable on exposure to light.
- 10.3 Possibility of Hazardous Reactions:** Reacts with (strong) oxidizers.
- 10.4 Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures.
- 10.5 Incompatible Substances:** Strong acids. Strong bases. Strong oxidizing agents.
- 10.6 Hazardous Decomposition Products:** In case of fire situation, hydrogen fluoride, carbon monoxide, carbon dioxide and other hazardous decomposition products may be formed.

SECTION 11 – TOXICOLOGY INFORMATION

11.1 Information on Toxicological Effects:

Toxicity Data:

Oxalic Acid	144-62-7	LD50 Dermal - Rat	20 g/kg
		LD50 Oral – Rat	375 mg/kg
		LC50 Inhalation	Not listed
Dimethyl Ketone	67-41-1	LD50 Dermal - Rabbit	5,800 mg/kg
		LC50 Inhalation – Rat	76 mg/l
		LD50 Oral - Rat	5,800 mg/kg

- Suspected Cancer Agent:** No data
- Irritancy:** Skin, eye, respiratory irritant.
- Sensitization to the Product:** This product is not expected to cause skin sensitization.
- Germ Cell Mutagenicity:** No data
- Reproductive Toxicity:** This product is not expected to be a human reproductive toxicant.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity:

Oxalic Acid	144-62-7	LC50 – Bluegill – 24h	4000mg/L
		EC50 – Water Flea – 48h	136.9mg/L
Dimethyl Ketone	67-41-1	LC50 – Rainbow Trout – 96h	5540mg/L

- 12.2 Persistence and Degradability:** Persistence is unlikely.
- 12.3 Bioaccumulative Potential:** No specific data available on this product.
- 12.4 Mobility in Soil:** Will likely be mobile due to its water solubility.
- 12.5 Results of PBT and vPvB Assessment:** No specific data available on this product.
- 12.6 Other Adverse Effects:** No data available
- 12.7 Water Endangerment Class:** At present, there are no ecotoxicological assessments for this product.

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SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.

13.2 EU Waste Code:

1357/2014 and 2017/997.

SECTION 14 - TRANSPORTATION INFORMATION

Department of Transportation (DOT)

In accordance with DOT

Transport document description

: UN1090 Acetone, 3, II

UN-No.(DOT)

: UN1090

Proper Shipping Name (DOT)

: Acetone

Transport hazard class(es) (DOT)

: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT)

: II - Medium Danger

Hazard labels (DOT)

: 3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx)

: 202

DOT Packaging Bulk (49 CFR 173.xxx)

: 242

DOT Special Provisions (49 CFR 172.102)

: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx)

: 150

DOT Quantity Limitations Passenger aircraft /rail (49 CFR 173.27)

: 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

: 60 L

DOT Vessel Stowage Location

: B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one

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Other information : passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
: No supplementary information available.

Transportation of Dangerous Goods

Transport document description : UN1090 ACETONE, 3, II
 UN-No. (TDG) : UN1090
 Proper Shipping Name : ACETONE
 (Transportation of Dangerous Goods)
 TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids
 Packing group : II - Medium Danger
 Explosive Limit and Limited Quantity Index : 1 L
 Passenger Carrying Road Vehicle or : 5 L
 Passenger Carrying Railway Vehicle Index
 Passenger Carrying Ship Index : Forbidden

Transport by sea

Transport document description (IMDG) : UN 1090 acetone, 3, II
 UN-No. (IMDG) : 1090
 Proper Shipping Name (IMDG) : acetone
 Class (IMDG) : 3 - Flammable liquids
 Packing group (IMDG) : II - substances presenting medium danger
 EmS-No. (1) : F-E
 EmS-No. (2) : S-D

Air transport

Transport document description (IATA) : UN 1090 Acetone, 3, II
 UN-No. (IATA) : 1090
 Proper Shipping Name (IATA) : Acetone
 Class (IATA) : 3 - Flammable Liquids
 Packing group (IATA) : II - Medium Danger

SECTION 15 – REGULATORY INFORMATION

United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification Active/Inactive	TSCA – EPA Regulatory Flags
Oxalic acid	144-62-7	X	Active	-

Legend:

TSCA – Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' – Not Listed

T – Indicates a substance that is the subject of a Section 4 test rule under TSCA.

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TSCA 12 (b) – Notices of Export

Component	CAS-No	TSCA 12(b) – Notices of Export
Oxalic acid	144-62-7	Section 4

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Oxalic acid	144-62-7	X	-	205-634-3	X	X	X	X	KE-13152
Acetone	67-64-1	X	-	200-662-2	X	X	X	X	KE-29367

Canada

SDS in compliance with provisions of information as set out in Canadian Standard – Part4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

Canada – National Pollutant Release Inventory (NPRI) – Acetone – Part 4 substance.

U.S. Federal Regulations

SARA 313 - Not applicable

SARA 311/312 Hazard Categories - See section 2 for more information

CWA (Clean Water Act) - Not applicable

Clean Air Act - Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA - Not applicable

California Proposition 65 - This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Oxalic acid	X	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico – Grade Slight risk, Grade 1

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SECTION 16 – OTHER INFORMATION

Prepared By: Chris Eigbrett (MSDS to GHS Compliance)
Date of Printing: July 1, 2018

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. SpecChem assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, SpecChem assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET

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SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name (as labeled):	Versa Etch 03,05,15
Synonyms:	N/A
CAS No:	Mixture
1.2 Product Use:	Surface Retarder
1.3 Company Name:	SpecChem
Company Address:	1511 Baltimore Ave; Suite 600
Company Address Cont:	Kansas City, MO 64108
Business Phone:	(816) 968-5600
Website:	www.specchemllc.com
1.4 Emergency Telephone Number:	Chemtrec: (800) 424-9300
Date of Last Revision:	July 1, 2018
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SECTION 2 – HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids: Category 2
Acute oral toxicity: Category 4
Acute dermal toxicity: Category 4
Serious Eye Damage/Eye Irritation: Category 2A
Specific target organ toxicity – (single exposure): Category 3
Target Organs – Kidney, Liver.

Label Elements

Signal Word

Danger

Hazard Statements

Causes serious eye damage
Highly flammable liquid and vapour
May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure
Harmful if swallowed or in contact with skin



EU and GHS Symbols

Precautionary Statements
Prevention

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Wash face, hands, and any exposed skin thoroughly after handling
 Do not eat, drink, or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat, hot surfaces, open flames, sparks. – No smoking.
 Keep container tightly closed.
 Take precautionary measures against static discharge.
 Use only non-sparking tools.
 Use explosion-proof electrical, lighting, ventilating equipment

Response

Get medical attention/advice if you feel unwell

Skin

IF ON SKIN: Wash with plenty of soap and water
 Call a POISON CENTER or doctor/physician if you feel unwell
 Take off contaminated clothing immediately and wash contaminated clothing before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	WT%	CAS No.	EINECS No.	Hazard Classification
Tartaric acid	1-5%	87-69-4	201-766-0	Eye Irrit. 1
Propylene Glycol	1-5%	57-55-6	200-338-0	None
Dimethyl Ketone	1-5%	67-64-1	200-662-2	Flam Liq. 2, Eye Irrit. 2A, STOT SE 3
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

Note: All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures:

General Advice: If symptoms persist, call a physician

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Eye Contact: Flush with large amounts of water. Remove contact lenses if easy to do so. Continue rinsing. If signs/symptoms develop, get medical attention.

Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion: Clean mouth with water and drink afterwards plenty of water. Do not give milk/oil to drink. Do not induce vomiting. Give activated charcoal. Get medical attention if symptoms occur.

4.2 Symptoms and Effects Both Acute and Delayed:

Symptoms/effects: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation: EXPOSURE TO HIGH CONCENTRATIONS: Feeling of weakness. Irritation of the respiratory tract. Nausea. Vomiting. Headache. Central nervous system depression. Dizziness. Narcosis. Excited/restless. Drunkenness. Disturbed motor response. Respiratory difficulties. Disturbances of consciousness.

Symptoms/effects after skin contact: ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

Symptoms/effects after eye contact: Irritation of the eye tissue.

4.3 Recommendations to Physicians:

Notes to Physician: Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Fire Extinguishing Materials:

Suitable extinguishing media: Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (alcohol-resistant). Water spray if puddle cannot expand.

Unsuitable extinguishing media: Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

5.2 Unusual Fire and Explosion Hazards:

Fire hazard: DIRECT FIRE HAZARD. Highly flammable liquid and vapour. Gas/vapor flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Gas/vapor spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard: DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. Heat may cause pressure rise in tanks/drums: explosion risk. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".

Reactivity: Violent to explosive reaction with many compounds. Prolonged storage: on exposure to light: release of harmful gases/vapours.

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5.3 Special Fire-Fighting Procedures:

Firefighting instructions: Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion.

Protection during firefighting: Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.

6.2 Environmental Precautions:

Do not discharge to streams, ponds, lakes or sewers. Avoid subsoil penetration. For larger, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3 Spill and Leak Response:

Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Soak up with sawdust, sand, oil dry or other inert absorbent material. Pick up and transfer to properly labelled containers.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Do not use sparking tools. Ground containers when transferring material. Avoid formation of respirable particles. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling. Wash contaminated clothing before re-use. ***Agitate thoroughly before use***

7.2 Storage and Handling Practices:

Storage conditions: Keep only in the original container in a cool, well ventilated place away from : Heat sources, Direct sunlight, incompatible materials. Keep container closed when not in use.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

Storage temperature: 15 - 20 °C

Heat-ignition: KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Prohibitions on mixed storage: KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. strong acids. (strong) bases. halogens. amines.

Storage area: Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. Meet the legal requirements.

Special rules on packaging: SPECIAL REQUIREMENTS: closing. with pressure relief valve. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials: SUITABLE MATERIAL: steel. stainless steel. carbon steel. aluminium. iron. copper. nickel. bronze. glass. MATERIAL TO AVOID: synthetic material.

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SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure Parameters:

Ingredients	CAS No.	OSHA PEL	NIOSH PEL
Dimethyl Ketone	67-64-1	TWA: 2400mg/m ³	TWA: 590mg/m ³

8.2 Exposure Controls:

Ventilation and Engineering Controls:

Local ventilation must be used during application. Use suitable ventilation to remove mists or vapors during spray or other applications.

Respiratory Protection:

Wear suitable personal respirator and protective suit when spray or mist occurs.

Eye Protection:

Wear safety glasses with side shields or goggles

Hand Protection:

Wear protective gloves.

Body Protection:

Rubber apron, boots or coveralls as necessary to prevent skin contact.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance (Physical State and Color): Liquid

Odor: Aromatic Odour

Odor Threshold: No data available

pH: 2-4

Melting/Freezing Point: No data available

Boiling Point: 100°C (212°F)

Flash Point: No data available

Evaporation Rate: No data available

Flammability (Solid; Gas): Not applicable

Vapor Pressure (mm Hg @ 20°C (68° F): No data available

Vapor Density: No data available

Relative Density: No data available

Specific Gravity: 1.03

Solubility in Water: Soluble in water

Weight per Gallon: 8.5 - 8.7

Partition Coefficient (n-octanol/water): No data available

Auto-Ignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

9.2 Other Information: No data available

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SECTION 10 – STABILITY AND REACTIVITY

- 10.1 Reactivity:** Violent to explosive reaction with many compounds. Prolonged storage: on exposure to Light: release of harmful gases/vapours.
- 10.2 Stability:** Unstable on exposure to light.
- 10.3 Possibility of Hazardous Reactions:** Reacts with (strong) oxidizers.
- 10.4 Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures.
- 10.5 Incompatible Substances:** Strong acids. Strong bases. Strong oxidizing agents.
- 10.6 Hazardous Decomposition Products:** In case of fire situation, hydrogen fluoride, carbon monoxide, carbon dioxide and other hazardous decomposition products may be formed.

SECTION 11 – TOXICOLOGY INFORMATION

11.1 Information on Toxicological Effects:

Toxicity Data:

Dimethyl Ketone	67-41-1	LD50 Dermal - Rabbit	5,800 mg/kg
		LC50 Inhalation – Rat	76 mg/l
		LD50 Oral - Rat	5,800 mg/kg

- Suspected Cancer Agent:** No data
- Irritancy:** Skin, eye, respiratory irritant.
- Sensitization to the Product:** This product is not expected to cause skin sensitization.
- Germ Cell Mutagenicity:** No data
- Reproductive Toxicity:** This product is not expected to be a human reproductive toxicant.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity:

Tartaric acid	87-69-4	EC50 – Water Flea – 48h	230 mg/L
Dimethyl Ketone	67-41-1	LC50 – Rainbow Trout – 96h	5540mg/L

- 12.2 Persistence and Degradability:** Persistence is unlikely.
- 12.3 Bioaccumulative Potential:** No specific data available on this product.
- 12.4 Mobility in Soil:** Will likely be mobile due to its water solubility.
- 12.5 Results of PBT and vPvB Assessment:** No specific data available on this product.
- 12.6 Other Adverse Effects:** No data available
- 12.7 Water Endangerment Class:** At present, there are no ecotoxicological assessments for this product.

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SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.

13.2 EU Waste Code:

1357/2014 and 2017/997.

SECTION 14 - TRANSPORTATION INFORMATION

Department of Transportation (DOT)

In accordance with DOT

Transport document description

: UN1090 Acetone, 3, II

UN-No.(DOT)

: UN1090

Proper Shipping Name (DOT)

: Acetone

Transport hazard class(es) (DOT)

: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT)

: II - Medium Danger

Hazard labels (DOT)

: 3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx)

: 202

DOT Packaging Bulk (49 CFR 173.xxx)

: 242

DOT Special Provisions (49 CFR 172.102)

: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx)

: 150

DOT Quantity Limitations Passenger aircraft /rail (49 CFR 173.27)

: 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

: 60 L

DOT Vessel Stowage Location

: B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) “On deck only” on passenger vessels in which the

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Other information : number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
: No supplementary information available.

Transportation of Dangerous Goods

Transport document description : UN1090 ACETONE, 3, II
 UN-No. (TDG) : UN1090
 Proper Shipping Name : ACETONE
 (Transportation of Dangerous Goods)
 TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids
 Packing group : II - Medium Danger
 Explosive Limit and Limited Quantity Index : 1 L
 Passenger Carrying Road Vehicle or : 5 L
 Passenger Carrying Railway Vehicle Index
 Passenger Carrying Ship Index : Forbidden

Transport by sea

Transport document description (IMDG) : UN 1090 acetone, 3, II
 UN-No. (IMDG) : 1090
 Proper Shipping Name (IMDG) : acetone
 Class (IMDG) : 3 - Flammable liquids
 Packing group (IMDG) : II - substances presenting medium danger
 EmS-No. (1) : F-E
 EmS-No. (2) : S-D

Air transport

Transport document description (IATA) : UN 1090 Acetone, 3, II
 UN-No. (IATA) : 1090
 Proper Shipping Name (IATA) : Acetone
 Class (IATA) : 3 - Flammable Liquids
 Packing group (IATA) : II - Medium Danger

SECTION 15 – REGULATORY INFORMATION

United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification Active/Inactive	TSCA – EPA Regulatory Flags
Tartaric Acid	87-69-4	X	-	-

Legend:

TSCA – Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' – Not Listed

T – Indicates a substance that is the subject of a Section 4 test rule under TSCA.

TSCA 12 (b) – Notices of Export

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Component	CAS-No	TSCA 12(b) – Notices of Export
Tartaric Acid	87-69-4	Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Tartaric Acid	87-69-4	X	-	201-766-0	X	X	X	X	X
Acetone	67-64-1	X	-	200-662-2	X	X	X	X	KE-29367

Canada

SDS in compliance with provisions of information as set out in Canadian Standard – Part4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

Canada – National Pollutant Release Inventory (NPRI) – Acetone – Part 4 substance.

U.S. Federal Regulations

SARA 313 – Not applicable

SARA 311/312 Hazard Categories – See section 2 for more information

CWA (Clean Water Act) – Not applicable

Clean Air Act – Not applicable

OSHA – Occupational Safety and Health Administration Not applicable

CERCLA – Not applicable

California Proposition 65 – This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico – Grade Slight risk, Grade 1

SECTION 16 – OTHER INFORMATION

Prepared By: Chris Eigbrett (MSDS to GHS Compliance)

Date of Printing: July 1, 2018

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. SpecChem assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, SpecChem assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET

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SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name (as labeled):	Versa Etch 25,75,125
Synonyms:	N/A
CAS No:	Mixture
1.2 Product Use:	Surface Retarder
1.3 Company Name:	SpecChem
Company Address:	1511 Baltimore Ave; Suite 600
Company Address Cont:	Kansas City, MO 64108
Business Phone:	(816) 968-5600
Website:	www.specchemllc.com
1.4 Emergency Telephone Number:	Chemtrec: (800) 424-9300
Date of Last Revision:	July 1, 2018
Date of Current Revision:	December 11, 2020

SECTION 2 – HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids: Category 2

Serious Eye Damage/Eye Irritation: Category 2A

Specific target organ toxicity – (single exposure): Category 3

Label Elements

Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapour

Causes serious eye irritation

May cause drowsiness or dizziness

May cause damage to organs through prolonged or repeated exposure

Harmful if swallowed or in contact with skin



EU and GHS Symbols

Precautionary Statements

Prevention

Wash face, hands, and any exposed skin thoroughly after handling

Do not eat, drink, or smoke when using this product

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

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Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat, hot surfaces, open flames, sparks. – No smoking.
 Keep container tightly closed.
 Take precautionary measures against static discharge.
 Use only non-sparking tools.
 Use explosion-proof electrical, lighting, ventilating equipment
 Use only outdoors or in a well-ventilated area.
 Protect from sunlight.

Response

Get medical attention/advice if you feel unwell

Inhalation

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

Skin

IF ON SKIN: Wash with plenty of soap and water

Call a POISON CENTER or doctor/physician if you feel unwell

Take off contaminated clothing immediately and wash contaminated clothing before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	WT%	CAS No.	EINECS No.	Hazard Classification
Methyl-oxirane polymer	0-2%	9003-11-6	618-355-0	None
Propylene Glycol	1-5%	57-55-6	200-338-0	None
Dimethyl Ketone	1-5%	67-64-1	200-662-2	Flam Liq. 2, Eye Irrit. 2A, STOT SE 3
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

Note: All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures:

General Advice: If symptoms persist, call a physician

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Eye Contact:	Flush with large amounts of water. Remove contact lenses if easy to do so. Continue rinsing. If signs/symptoms develop, get medical attention.
Skin Contact:	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.
Inhalation:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Ingestion:	Clean mouth with water and drink afterwards plenty of water. Do not give milk/oil to drink. Do not induce vomiting. Give activated charcoal. Get medical attention if symptoms occur.

4.2 Symptoms and Effects Both Acute and Delayed:

Symptoms/effects: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation: EXPOSURE TO HIGH CONCENTRATIONS: Feeling of weakness. Irritation of the respiratory tract. Nausea. Vomiting. Headache. Central nervous system depression. Dizziness. Narcosis. Excited/restless. Drunkenness. Disturbed motor response. Respiratory difficulties. Disturbances of consciousness.

Symptoms/effects after skin contact: ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

Symptoms/effects after eye contact: Irritation of the eye tissue.

4.3 Recommendations to Physicians:

Notes to Physician: Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Fire Extinguishing Materials:

Suitable extinguishing media: Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (alcohol-resistant).

Unsuitable extinguishing media: Water may be ineffective.

5.2 Unusual Fire and Explosion Hazards:

Fire hazard: DIRECT FIRE HAZARD. Highly flammable liquid and vapour. Gas/vapor flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Gas/vapor spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard: DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. Heat may cause pressure rise in tanks/drums: explosion risk. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".

Reactivity: Violent to explosive reaction with many compounds. Prolonged storage: on exposure to light: release of harmful gases/vapours.

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5.3 Special Fire-Fighting Procedures:

Protective equipment: Wear protective eyewear, gloves, and clothing. Use NIOSH-approved respiratory protection/breathing apparatus.

Additional information (precautions): Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.

6.2 Environmental Precautions:

Do not discharge to streams, ponds, lakes or sewers. Avoid subsoil penetration. For larger, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3 Spill and Leak Response:

Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Soak up with sawdust, sand, oil dry or other inert absorbent material. Pick up and transfer to properly labelled containers.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Do not use sparking tools. Ground containers when transferring material. Avoid formation of respirable particles. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling. Wash contaminated clothing before re-use. ***Agitate thoroughly before use***

7.2 Storage and Handling Practices:

Storage conditions: Keep only in the original container in a cool, well ventilated place away from : Heat sources, Direct sunlight, incompatible materials. Keep container closed when not in use.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

Storage temperature: 15 - 20 °C

Heat-ignition: KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Prohibitions on mixed storage: KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. strong acids. (strong) bases. halogens. amines.

Storage area: Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. Meet the legal requirements.

Special rules on packaging: SPECIAL REQUIREMENTS: closing. with pressure relief valve. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials: SUITABLE MATERIAL: steel. stainless steel. carbon steel. aluminium. iron. copper. nickel. bronze. glass. MATERIAL TO AVOID: synthetic material.

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SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure Parameters:

Ingredients	CAS No.	OSHA PEL	NIOSH PEL
Dimethyl Ketone	67-64-1	TWA: 2400mg/m ³	TWA: 590mg/m ³

8.2 Exposure Controls:

Ventilation and Engineering Controls:

Local ventilation must be used during application. Use suitable ventilation to remove mists or vapors during spray or other applications.

Respiratory Protection:

Wear suitable personal respirator and protective suit when spray or mist occurs.

Eye Protection:

Wear safety glasses with side shields or goggles

Hand Protection:

Wear protective gloves.

Body Protection:

Rubber apron, boots or coveralls as necessary to prevent skin contact.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance (Physical State and Color): Liquid

Odor: Aromatic Odour

Odor Threshold: No data available

pH: 1-3

Melting/Freezing Point: No data available

Boiling Point: No data available

Flash Point: No data available

Evaporation Rate: No data available

Flammability (Solid; Gas): Not applicable

Vapor Pressure (mm Hg @ 20°C (68° F): No data available

Vapor Density: No data available

Relative Density: No data available

Specific Gravity: 1.03

Solubility in Water: Soluble in water

Weight per Gallon: 8.5 - 8.7

Partition Coefficient (n-octanol/water): No data available

Auto-Ignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

9.2 Other Information: No data available

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SECTION 10 – STABILITY AND REACTIVITY

- 10.1 Reactivity:** Nonreactive under normal conditions.
- 10.2 Stability:** Unstable on exposure to light.
- 10.3 Possibility of Hazardous Reactions:** Reacts with (strong) oxidizers. Acetone reacts violently with phosphorous oxychloride.
- 10.4 Conditions to Avoid:** Direct sunlight. Heat, Sparks, Open Flames. Incompatible materials.
- 10.5 Incompatible Substances:** Strong acids. Strong bases. Strong oxidizing agents.
- 10.6 Hazardous Decomposition Products:** In case of fire situation, hydrogen fluoride, carbon monoxide, carbon dioxide and other hazardous decomposition products may be formed.

SECTION 11 – TOXICOLOGY INFORMATION

11.1 Information on Toxicological Effects:

Toxicity Data:

Dimethyl Ketone	67-41-1	LD50 Dermal - Rabbit	5,800 mg/kg
		LC50 Inhalation – Rat	76 mg/l
		LD50 Oral - Rat	5,800 mg/kg
Methyl-oxirane polymer	9003-11-6	LD50 Oral – Rat	2,000mg/kg
Gluconic Acid	526-95-4	LD50 Oral – Rat	>2000mg/kg

- Suspected Cancer Agent:** No data
- Irritancy:** Skin, eye, respiratory irritant.
- Sensitization to the Product:** This product is not expected to cause skin sensitization.
- Germ Cell Mutagenicity:** No data
- Reproductive Toxicity:** This product is not expected to be a human reproductive toxicant.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity:

Methyl-oxirane polymer	9003-11-6	LC50 – Golden Orfe – 96h	>100 mg/L
Dimethyl Ketone	67-41-1	LC50 – Rainbow Trout – 96h	5540mg/L
Gluconic Acid	526-95-4	LC50 – Fish – 96h	>1000mg/L

- 12.2 Persistence and Degradability:** Persistence is unlikely.
- 12.3 Bioaccumulative Potential:** No specific data available on this product.
- 12.4 Mobility in Soil:** Will likely be mobile due to its water solubility.
- 12.5 Results of PBT and vPvB Assessment:** No specific data available on this product.
- 12.6 Other Adverse Effects:** No data available
- 12.7 Water Endangerment Class:** At present, there are no ecotoxicological assessments for this product.

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SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.

13.2 EU Waste Code:

1357/2014 and 2017/997.

SECTION 14 - TRANSPORTATION INFORMATION

Department of Transportation (DOT)

In accordance with DOT

Transport document description

: UN1090 Acetone, 3, II

UN-No.(DOT)

: UN1090

Proper Shipping Name (DOT)

: Acetone

Transport hazard class(es) (DOT)

: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT)

: II - Medium Danger

Hazard labels (DOT)

: 3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx)

: 202

DOT Packaging Bulk (49 CFR 173.xxx)

: 242

DOT Special Provisions (49 CFR 172.102)

: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx)

: 150

DOT Quantity Limitations Passenger aircraft /rail (49 CFR 173.27)

: 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

: 60 L

DOT Vessel Stowage Location

: B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one

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Other information

passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
: No supplementary information available.

Transportation of Dangerous Goods

Transport document description : UN1090 ACETONE, 3, II
 UN-No. (TDG) : UN1090
 Proper Shipping Name : ACETONE
 (Transportation of Dangerous Goods)
 TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids
 Packing group : II - Medium Danger
 Explosive Limit and Limited Quantity Index : 1 L
 Passenger Carrying Road Vehicle or : 5 L
 Passenger Carrying Railway Vehicle Index
 Passenger Carrying Ship Index : Forbidden

Transport by sea

Transport document description (IMDG) : UN 1090 acetone, 3, II
 UN-No. (IMDG) : 1090
 Proper Shipping Name (IMDG) : acetone
 Class (IMDG) : 3 - Flammable liquids
 Packing group (IMDG) : II - substances presenting medium danger
 EmS-No. (1) : F-E
 EmS-No. (2) : S-D

Air transport

Transport document description (IATA) : UN 1090 Acetone, 3, II
 UN-No. (IATA) : 1090
 Proper Shipping Name (IATA) : Acetone
 Class (IATA) : 3 - Flammable Liquids
 Packing group (IATA) : II - Medium Danger

SECTION 15 – REGULATORY INFORMATION

United States of America Inventory

Legend:

TSCA – Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' – Not Listed

T – Indicates a substance that is the subject of a Section 4 test rule under TSCA.

TSCA 12 (b) – Notices of Export

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International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Acetone	67-64-1	X	-	200-662-2	X	X	X	X	KE-29367

Canada

SDS in compliance with provisions of information as set out in Canadian Standard – Part4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

Canada – National Pollutant Release Inventory (NPRI) – Acetone – Part 4 substance.

U.S. Federal Regulations

SARA 313 – Not applicable

SARA 311/312 Hazard Categories – Acute, Chronic, Fire

CWA (Clean Water Act) – Not applicable

Clean Air Act – Not applicable

OSHA – Occupational Safety and Health Administration Not applicable

CERCLA – 67-64-1 Acetone 5000 lb.

California Proposition 65 – THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

U.S. State Right-to-Know Regulations

Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico – Grade Slight risk, Grade 1

SECTION 16 – OTHER INFORMATION

Prepared By: Chris Eigbrett (MSDS to GHS Compliance)

Date of Printing: July 1, 2018

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is

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current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. SpecChem assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, SpecChem assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET