Safety Data Sheet

Safety Data Sheet (in compliance with Regulation (EC) 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010)

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier:

Trade Name (as labeled):	**Purevac® Evacuation System Cleaner**
Part/Item Number:	21113 (2L), 21115 (5L), EX21112 (2L), EX21114 (5L)

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

Recommended Use:	Evacuation system cleaner
Restrictions on Use:	For professional use only

1.3 Details of the Supplier of the Safety Data Sheet:

Manufacturer/Supplier Name:	Sultan Healthcare
Manufacturer/Supplier Address:	1301 Smile Way York, PA, USA
Manufacturer/Supplier Telephone Number:	1-201-871-1232 or 800-637-8582 (Product Information)-
Email address:	customer.service@sultanhc.com

1.4 Emergency Telephone Number:

Emergency Contact Telephone Number:	800-535-5053 (INFOTRAC) 1-352-323-3500 (Outside the United States – Call Collect)

2. HAZARD(s) IDENTIFICATION

2.1 Classification of the Substance or Mixture:

GHS Classification:

Health	Environmental	Physical
Skin Corrosive Category 1 Eye Damage Category 1	**Not hazardous**	Corrosive to Metals Category 1

EU Classification (1999/45/EC as amended): Irritant (Xi)

EU Risk (R) Phrases: R36/38

Refer to Section 16 for the full text of the EU Classifications and R Phrases.

2.2 Labeling Elements: Contains Phosphoric Acid, and Glycolic Acid

Signal Word: Danger

Hazard Statements	Precautionary Statements
H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage.	P234 Keep only in original container. P260 Do not breathe mists. P264 Wash exposed skin thoroughly after handling. P280 Wear protective gloves, protective clothing, eye protection, and face protection. P390 Absorb spillage to prevent material damage. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P310 Immediately call a POISON CENTER, doctor, or physician. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water, or shower. P363 Wash contaminated clothing before reuse. P310 Immediately call a POISON CENTER, doctor, or physician. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER, doctor, or physician. 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, or physician. P405 Store locked up. P406 Store in corrosive resistant container with a resistant inner liner. P501 Dispose of contents and container in accordance with local and national regulations.

2.3 Other Hazards: None

3. COMPOSITION AND INFORMATION ON INGREDIENTS

3.2 Mixture

Hazardous Components	C.A.S. # EC#	IUPAC Name	CLP/GHS / EU Classification (1272/2008) (1999/45/EC)	WT %
Phosphoric Acid	7664-38-2 / 231-633-2	Phosphoric Acid	C R34 Skin Corr. 1 (H314) Metal Corr. 1 (H290)	<20
Glycolic Acid	79-14-1 / 201-180-5	2-hydroxyacetic acid	Xi, Xn R22, R41, R38 Skin Corr. 1 (H314) Acute Tox. 4 (H302)(H332) Metal Corr. 1 (H290)	<10
Isopropyl Alcohol	67-63-0 / 200-661-7	propan-2-ol	F, Xi R11, R36, R67 Flam. Liq. 2 (H225) Eye Irrit. 2A (H319) STOT SE 3 (H336)	<5
Surfactant	Mixture	Not applicable	Xn, Xi R22, R36 Acute Tox. 4 (H302) Eye Irrit. 2A (H319)	<5

The exact concentration is being withheld as a trade secret.

Refer to Section 16 for the full text of the EU Classifications and R Phrases.

4. FIRST-AID MEASURES

4.1 Description of First Aid Measures:

Routes of Exposure	First Aid Instructions
Eye	Immediately flush eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get immediate medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get immediate medical attention. Launder clothing before reuse.
Inhalation	If symptoms develop, remove to fresh air. Get medical attention.
Ingestion	Do not induce vomiting. Rinse mouth with water and give one glass of water to drink. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed:

Causes severe eye and skin irritation or burns. Inhalation of mists may cause mucous membrane and upper respiratory tract irritation or burns with possible pulmonary edema. Ingestion may cause burns to the mouth, throat and stomach.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed:

If eye or skin contact occurs, get immediate medical attention. If swallowed, get immediate medical attention.

Note to Physicians (Treatment, Testing, and Monitoring): Treatment of overexposure should be directed at the control of symptoms and clinical conditions.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media			
Use media appropriate for surrounding fire.			
5.2 Special Hazards Arising from the Substance or Mixture:			
Contact with metals may form flammable hydrogen gas.			
5.3 Advice for Fire-Fighters:			
Fire Fighting Procedures:	Cool fire exposed containers and structures with water.		
Precautions for Fire Fighters:	Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.		
Recommended Protective Equipment for Fire Fighters:			
EYES/FACE	SKIN	RESPIRATORY	THERMAL
			

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:			
Wear appropriate protective clothing, gloves and eye protection.			
Recommended Personal Protective Equipment for Containment and Clean-up:			
EYES/FACE	**SKIN**	**RESPIRATORY**	**THERMAL**
			

6.2 Environmental Precautions:
Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

6.3 Methods and Material for Containment and Cleaning up:
Collect using an inert non-combustible absorbent material and place in appropriate containers for disposal.

6.4 Reference to Other Sections:

Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handing:

Prevent contact with the eyes and skin. Do not breathe mists. Wear appropriate protective clothing and equipment. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

7.2 Conditions for Safe Storage, Including Any Incompatibilities:

Store in a cool, dry, well ventilated area away from incompatible materials. Protect from physical damage.

7.3 Specific End Use (s): For professional use only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Occupational Exposure Limits:

Phosphoric Acid	United States	1 mg/m3 TWA US OSHA PEL 1 mg/m3 TWA ACGIH TLV, 3 mg/m3 STEL
	Germany	2 mg/m3 TWA, 4 mg/m3 STEL DFG MAK (inhalable)
	United Kingdom	1 mg/m3 TWA, 2 mg/m3 STEL UK OEL
	France	1 mg/m3 TWA INRS VME, 2 mg/m3 VLCT
	Spain	1 mg/m3 TWA VLA-ED, 2 mg/m3 VLA-EC
	Italy	1 mg/m3 8 hr Value Limit, 2 mg/m3 Short Term
	European Union	None Established
Glycolic Acid	United States	None Established
	Germany	None Established
	United Kingdom	None Established
	France	None Established
	Spain	None Established
	Italy	None Established
	European Union	None Established
Isopropyl Alcohol	United States	400 ppm TWA OSHA PEL 200 ppm TWA ACGIH TLV, 400 ppm STEL
	Germany	200 ppm TWA, 400 ppm STEL DFG MAK
	United Kingdom	400 ppm TWA UK OEL, 500 ppm STEL
	France	400 ppm TWA INRS VLCT
	Spain	400 ppm TWA VLA-ED, 500 ppm VAL-EC

	Italy	None Established
	European Union	None Established
Surfactant	United States	None Established
	Germany	None Established
	United Kingdom	None Established
	France	None Established
	Spain	None Established
	Italy	None Established
	European Union	None Established

Biological Exposure Limits:
Isopropyl Alcohol: Acetone in urine 40 mg/L, end of shift at end of workweek (ACGIH)

8.2 Exposure Controls:

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Individual Protection Measures (PPE)

Specific Eye/face Protection: Chemical safety goggles and faceshield should be worn where splashing is possible.
Specific Skin Protection: Wear impervious gloves such as butyl rubber. Recommended glove: butyl rubber. Consult glove supplier for thickness and breakthrough times.
Specific Respiratory Protection: None required under normal use conditions.
Specific Thermal Hazards: Not applicable

Recommended Personal Protective Equipment

EYES/FACE	SKIN	RESPIRATORY	THERMAL
			

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance:	Clear pink liquid	**Explosive limits:**	Not applicable
Odor:	Alcohol	**Vapor pressure:**	24 mmHg @ 25°C
Odor threshold:	Not available	**Vapor density:**	Not available
pH:	pH at Concentrate: 0.5-1.5 pH at Recommended Dilution: ~4	**Relative density:**	1.097

Melting/freezing point:	Not available	**Solubility:**	Miscible
Initial boiling point and range:	212°F / 100°C	**Partition coefficient: n-octanol/water:**	Not available
Flash point:	>200°F / 93.3°C	**Auto-ignition temperature:**	Not available
Evaporation rate:	0.4	**Decomposition temperature:**	Not available
Flammability:	Not flammable	**Viscosity:**	Not available
Explosive Properties:	None	**Oxidizing Properties:**	None

9.2 Other Information: None available

10. STABILITY AND REACTIVITY

10.1 Reactivity: May react with strong bases and other incompatible materials.
10.2 Chemical Stability: Stable under normal use conditions.
10.3 Possibility of Hazardous Reactions: Will react to some metals to form flammable hydrogen gas.
10.4 Conditions to Avoid: Avoid high temperatures.
10.5 Incompatible materials: Avoid strong oxidizing agents, strong bases and reducing agents.
10.6 Hazardous Decomposition Products: Thermal decomposition may produce carbon and phosphorus oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects: Eyes: Causes severe irritation or burns with redness, pain, tearing and blurred vision. May cause permanent damage. Skin: May cause severe irritation or burns. Ingestion: Swallowing may cause sore throat, abdominal pain, nausea and severe burns to the mouth, throat and stomach. Inhalation: Inhalation of mists may cause burns to mucous membrane and upper respiratory tract irritation with possible chemical pneumonitis.
Chronic Health Effects: None expected.

Carcinogenicity: None of the components is listed as a carcinogen by IARC, NTP, OSHA, ACGIH or the EU Substances Directive. There is inadequate evidence of carcinogenicity of isopropyl alcohol in human and animals.

Mutagenicity: Isopropyl Alcohol: In an in-vivo study, isopropanol did not induce micronuclei in bone marrow of mice. ... Studies conducted in mammalian cells in vitro, it did not induce sister chromatid exchanges or gene mutations.

Medical Conditions Aggravated by Exposure: Employees with pre-existing eye and skin disorders may be at increased risk from exposure.

Acute Toxicity Data:

Phosphoric Acid: Oral rat LD50 1,530 mg/mg; Skin rabbit LD50 2,740 mg/kg; Inhalation rabbit LC50 1.689/L/1 hr

Glycolic Acid: Oral rat LD50 1,950 mg/kg; inhalation rat LC50 7.1 mg/L/4 hr

Isopropyl Alcohol: Oral rat LD50 5,045 mg/kg, Skin rabbit LD50 12,800 mg/kg

Surfactant: Oral rat LD50 616 mg/kg, Skin rabbit 5660 mg/kg, Inhalation rat LC50 >8 mg/L/1 hr

Reproductive Toxicity Data: When glycolic acid is given to pregnant rats by mouth on a daily basis, it induces malformations at high, maternally toxic doses. In another study, a marginal increase in fetal abnormalities was seen at a dose associated with marginal maternal toxicity, with no effects on fetal development seen at lower doses.

Specific Target Organ Toxicity (STOT):

Single Exposure: Glycolic acid: In a study with rats, a 70% solution at 5,000 mg/kg was fatal to 8 of 10 rats. A dose of 500 mg/kg produced no deaths. At the completion of the study, animals were found to have increased kidney weights and lesions in the stomach, liver and kidneys.

Repeated Exposure: Isopropyl Alcohol: A 13 week inhalation study with rats found effects of narcosis at 5,000 ppm. These effects were reversible at the cessation of exposure. A 73 week chronic study found male reproductive effects at 2,500 and 5,000 ppm and liver effects at 2,500 ppm. Glycolic Acid: In an oral study with male and female rats, 0.5%, 1% and 2% glycolic acid was administered orally for 218-245 days. Decreased growth weight and liver and kidney effects were observed in the male rats. No effects were seen in the male rats given 0.5% and all the female rats.

12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Phosphoric Acid: No data available

Glycolic Acid: 96 hr LC50 brachydanio rerio >5000 mg/L; 48 hr EC50 daphnia magna 141 mg/L

Isopropyl Alcohol: 96 hr LC50 Pimephales promelas (fathead minnow) 6.12 mg/L

Surfactant: 96 hr LC50 pimephales promelas (fathead minnow) 13.3 mg/L; 48 hr EC50 daphnia magna 12.3 mg/L;
16 hr IC50 bacteria 220-770 mg/L

12.2 Persistence and Degradability: Phosphoric Acid: The acidity may be reduced by water hardness but the phosphate may persist indefinitely. Surfactant is readily biodegradable (>70% in 28 days). Isopropyl Alcohol is readily biodegradable (95% after 21 days). Glycolic acid is readily biodegradable (80% in 14 days).

12.3 Bio-accumulative Potential: The potential for glycolic acid to bioaccumulate in aquatic animals is expected to be low.

12.4 Mobility in Soil: Glycolic acid is expected to have very high mobility in soil. Phosphoric acid is expected to dissolve in the soil but a significant amount of the acid will move in the direction of the groundwater flow.

12.5 Other Adverse Effects: The low pH of this product will cause effects in aquatic systems and eco-systems.

12.6 Results of PBT/vPvB Assessment: Not applicable

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:
Regulations: Dispose in accordance with local and national environmental regulations.
Properties (Physical/Chemical) Affecting Disposal: None known.
Waste Treatment Recommendations: Dilute with water and neutralize with a sodium bicarbonate.

14. TRANSPORT INFORMATION

	14.1 UN Number	**14.2 UN Proper Shipping Name**	**14.3 Hazard Class(s)**	**14.4 Packing Group**	**14.5 Environmental Hazards**
DOT	UN3265	Corrosive Liquid, Acidic, Organic, n.o.s. (Phosphoric Acid, Glycolic Acid)	8	PG III	No
ADR/RID	UN3265	Corrosive Liquid, Acidic, Organic, n.o.s. (Phosphoric Acid, Glycolic Acid)	8	PG III	No
IMDG	UN3265	Corrosive Liquid, Acidic, Organic, n.o.s. (Phosphoric Acid, Glycolic Acid)	8	PG III	No
IATA/ICAO	UN3265	Corrosive Liquid, Acidic, Organic, n.o.s. (Phosphoric Acid, Glycolic Acid)	8	PG III	No

14.6 Special precautions for user: Corrosive Liquid

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable – product is transported only in packaged form.

15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:

U.S. Federal Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): This product has an RQ of 5,000 lbs based on the RQ of phosphoric acid of 1,000 lbs present at <20%. Many other states have more stringent regulations. Report all spills in accordance with local, state, and federal regulations.

Toxic Substances Control Act (TSCA): All of the ingredients in this product are listed on the EPA TSCA Inventory.

Clean Water Act (CWA): Not Listed

Clean Air Act (CAA): Not Listed

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Immediate Hazard:	**Yes**	**Pressure Hazard:**	**No**
Delayed Hazard:	**No**	**Reactivity Hazard:**	**No**
Fire Hazard:	**No**		

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372):

Components	C.A.S. #	WT %
None		

State Regulations

California: This product contains the following chemicals(s) known to the State of California to cause cancer, birth defects or reproductive harm:

Components	C.A.S. #	WT %
1,4-Dioxane	123-91-1	<0.2 ppm
Propylene oxide	75-56-9	<0.2 ppm
Ethylene Oxide	75-21-8	<0.2 ppm
Ethylbenzene	100-41-4	<9 ppm

International Regulations

Canadian Workplace Hazardous Materials Information System (WHMIS): Class E (Corrosive)

EU REACH: The substances in this product comply with the EU REACH regulation as applicable.

16. OTHER INFORMATION

Full text of Classification abbreviations used in Section 2 and 3:
C Corrosive
F Highly Flammable
Xi Irritant
Xn Harmful
R11 Highly flammable
R22 Harmful if swallowed.
R34 Causes burns.
R36 Irritating to eyes.
R36/38 Irritating to eyes and skin.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R67 Vapors may cause drowsiness and dizziness.
Acute Tox. 4 – Acute Toxicity Category 4
Flamm. Liq. 2 Flammable Liquid Category 2
Eye Irrit. 2A Eye Irritant Category 2A
Metal Corr. 1 – Corrosive to Metals Category 1
Skin Corr 1 - Skin Corrosion Category 1
STOT SE 3 Specific Target Organ Toxicity – Single Exposure Category 3

H225 Highly flammable liquid and vapour.
H290 May be corrosive to metals
H302 Harmful if swallowed
H312 Harmful in contact with skin
H314 Causes severe skin burns and eye damage
H319 Causes serious eye irritation.
H332 Harmful if inhaled
H336 May cause drowsiness or dizziness.

Supersedes: : 24 June 2013
Revision Summary: Comprehensive review, new format.

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Data Sources: US NLM ChemID Plus and HSDB, Substance SDS for components, IUCLID Dataset EU Chemical Bureau, ESIS, Country websites for occupational exposure limits.