

SECTION 1. IDENTIFICATION

Product Identifier	Pump Cleaner
Other Means of Identification	Pump flush
Recommended Use	Flushing solution for chemical grout pumps
Restrictions on Use	Professional use only
Supplier Identifier	Multiurethanes Ltd. 5245 Creekbank Rd, Mississauga, ON L4W 1N3 (Canada)
Emergency Telephone Number	1-800-663-6633

SECTION 2. HAZARD IDENTIFICATION

Classification	This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).
	Serious Eye Damage/Eye Irritation - Category 2B
Label Elements	Hazard Pictogram
	<u>Signal Word</u> WARNING
	<u>Hazard Statement</u> Causes eye irritation.
	<u>Precautionary Statements</u> Prevention Wear appropriate protective equipment. Avoid breathing fume/mist/vapours. Wash hands and exposed skin after handling.
	Response IF ON SKIN: Wash thoroughly after handling. Seek medical attention if concerned. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention. IF INHALED: Remove person to fresh air. Seek medical attention if concerned.
	<i>Storage</i> Store away from incompatible materials.



Disposal

Dispose of material in accordance with all applicable federal, state/provincial, and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the sole responsibility of the waste generator.

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Other Hazards
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Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. It may be mildly irritating to the skin and respiratory system.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	<u>CAS No.</u>	Concentrati on (% by weight)	Common Names / Synonyms	<u>Other</u> Identifiers
Pentanedioic acid, dimethyl ester	1119-40-0	60 - 61%	Glutaric acid, dimethyl ester DBE-5 dibasic ester	Not available
Dimethyl succinate	106-65-0	21 - 22%	Butanedioic acid, dimethyl ester Dimethyl butanedioate	Not available
Dimethyl Adipate	627-93-0	17 - 18%	Hexanedioic acid, dimethyl ester Dimethyl hexanedioate	Not available

Notes

The % concentrations for the above-listed chemicals will vary from batch to batch. The concentrations listed represent the actual concentration range for each chemical.

SECTION 4. FIRST-AID MEASURES

Inhalation	If inhaled, move to fresh air. If breathing is difficult, oxygen should be given only by qualified medical personnel. If breathing has stopped, give artificial respiration. Obtain medical attention if symptoms develop and persist.
Skin Contact	Wash off immediately with plenty of water. Remove and wash contaminated clothing before re-using it. If irritation or symptoms develop, seek medical attention.
Eye Contact	Immediately flush the eyes with running water for a minimum of 5 to 10 minutes. If irritation persists, seek prompt medical attention.
Ingestion	Do not induce vomiting. Have the victim rinse their mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person. Seek medical attention.
Most Important Symptoms and Effects, Acute and Delayed	Causes eye irritation. Symptoms may include tearing, redness and discomfort. Direct skin contact may cause slight or mild, transient irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Indication of Immediate Medical Attention and Special Treatment Needed	Treat symptomatically. If exposed or concerned, seek medical advice and attention.



SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media	<u>Suitable Extinguishing Media</u> Use media suitable to the surrounding fire such as water fog or fine spray carbon dioxide, and dry chemical.	
	Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.	
Specific Hazards Arising from the Product	Burning may produce irritating, toxic and obnoxious fumes.	
Special Protective Equipment and Precautions for Firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.	

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures	Restrict access to the area until clean-up is completed. Ensure clean-up is conducted by trained personnel only. Wear suitable protective equipment. Refer to the protective measures listed in sections 7 and 8.
Methods and Material for Containment and Cleaning Up	Ventilate the area of release. If safely possible, stop the spill or leak at the source. Dike for water control. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g., sand), then place the absorbent material into a container for later disposal (see section 13).
Notification Procedures	Not available
Environmental Precautions	Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	Use only in well-ventilated areas. Wear suitable protective equipment during handling. Avoid breathing vapours or mists. Avoid contact with eyes, skin and clothing. Keep away from extreme heat and flame. Keep away from incompatibles. Keep containers tightly closed when not in use. Wash thoroughly after handling.
Conditions for Safe Storage (including incompatibilities)	The storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Store away from incompatible materials. No smoking in the area. Store away from incompatible materials, such as strong oxidizers (e.g. chlorine, peroxides, etc.), strong acids, and strong alkalis.



SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters – Occupational Exposure Limits	Not available
Appropriate Engineering Controls	Use in a well-ventilated area. Maintain air concentrations below recommended exposure limits by using general or local exhaust ventilation.
Individual Protection Measures	Eye/Face Protection Safety glasses with side shields or chemical splash goggles, depending on workplace standards.
	Skin Protection Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.
	<u>Respiratory Protection</u> If airborne concentrations exceed the permissible exposure limit or are unknown, use NIOSH-approved respirators. If you need advice, seek it from respiratory protection specialists.
	<u>Hygiene Measures</u> Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or using toilet facilities. Remove soiled clothing and wash it thoroughly before reuse. Handle in accordance with good industrial hygiene and safety practices.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear colourless liquid
Odour	Odourless
Odour Threshold	Not available
рН	Not available
Melting Point / Freezing Point	Freezing point = -20°C (-4°F)
Initial Boiling Point and Boiling Range	196 - 225°C (384.8-437°F)
Flash Point	100°C (212°F) (closed cup method)
Evaporation Rate (BuAe = 1)	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limits	Flammability Limit – Upper = 8% Flammability Limit – Lower = 0.9%
Vapour Pressure	0.2 mmHg



Vapour Density (air = 1)	>1
Relative Density (water = 1)	1.09
Solubility in Water	Partially soluble
Solubility (other)	Not available
Partition Coefficient, n-octanol / water (logKow)	Not available
Auto-ignition Temperature	370°C (698°F)
Decomposition Temperature	Not available
Viscosity	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Not normally reactive.
Chemical Stability	Stable under recommended handling and storage conditions (refer to section 7).
Possibility of Hazardous Reactions	Hazardous polymerization does not occur.
Conditions to Avoid	Avoid excessive heat, sparks, and open flame. Avoid contact with incompatible materials.
Incompatible Materials	Strong oxidizers (e.g., chlorine, peroxides, etc.), strong acids and strong alkalis.
Hazardous Decomposition Products	None known; refer to hazardous combustion products in section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicological Data

Sensitization

Chemical Name	<u>LC50 (4hr)</u>	<u>LD50</u>		
Pentanedioic acid, dimethyl ester	Inhalation, rat: >11 mg/L (aerosol) (No mortality) (Read-across)	Oral, rat: >5000 mg/kg Dermal, rabbit: >2000 mg/kg (No mortality)		
Dimethyl succinate	Inhalation, rat: >5.9 mg/L (aerosol) (No mortality) (Read-across)	Oral, rat: >5000 mg/kg Dermal, rabbit: > 2000 mg/kg (No mortality)		
Dimethyl Adipate	Inhalation, rat: >11 mg/L (aerosol) (No mortality) (Read-across)	Oral, rat: > 5000 mg/kg Dermal, rabbit: > 5000 mg/kg		
Acute Toxicity	Not available			
Respiratory and/or Skin	It is not expected to be a skin or respiratory sensitizer.			



Skin Corrosion / Irritation	Not available
Serious Eye Damage / Irritation	Not available
Specific Target Organ Toxicity - Single Exposure	Not available
Specific Target Organ Toxicity - Repeated Exposure	Not available
Reproductive Toxicity	It is not expected to cause reproductive effects.
Germ Cell Mutagenicity	It is not expected to be mutagenic in humans.
Aspiration Hazard	Not available
Information on Likely Routes of Exposure	Inhalation Yes
	<u>Skin Contact</u> Yes
	<u>Eye Contact</u> Yes
	Ingestion Yes
Signs and Symptoms of Exposure	Inhalation If the product is heated or mists are formed, inhalation may irritate the nose, throat, and respiratory tract.
	<u>Skin Contact</u> Direct skin contact may result in little or no irritation.
	Eve Contact Causes eye irritation. Symptoms may include tearing, redness and discomfort.
	Ingestion Ingestion may irritate the digestive tract and cause nausea, vomiting and diarrhea.
Potential Chronic Health Effects	Prolonged or repeated contact may cause skin drying, cracking and defatting.
Carcinogenicity	ACGIH, IARC, OSHA or NTP list no components as carcinogens.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	It is not expected to be harmful to aquatic organisms. Do not allow material to contaminate the groundwater system. Refer to published ecotoxicity data for each component.
Persistence and Degradability	Readily biodegradable
Bioaccumulative Potential	Not expected to bioaccumulate.



Mobility in Soil	High water solubility indicates high mobility in soil		

Other Adverse Effects Not available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of material in accordance with all applicable federal, state/provincial, and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the sole responsibility of the waste generator.

SECTION 14. TRANSPORT INFORMATION

Regulation	<u>UN No.</u>	<u>Proper Shipping</u> <u>Name</u>	Technical Name (for N.O.S. entry)	<u>Transport</u> Hazard Class(es)	<u>Packing</u> <u>Group</u>
TDG	None	Not regulated	Not regulated	Not regulated	Not regulated
49 CFR/DOT	None	Not regulated	Not regulated	Not regulated	Not regulated
IMDG	None	Not regulated	Not regulated	Not regulated	Not regulated
ICAO/IATA	None	Not regulated	Not regulated	Not regulated	Not regulated
Tariff Classification Number3824.99Special PrecautionsNone are known or reported by the manufacturer.					
Environmental H	azards	According to the IMDG code, this substance does not meet the criteria an environmentally hazardous substance. Refer to section 12.			
Transport in bulk according to Not availal Annex II of MARPOL 73/78 and the IBC Code		Not available e			

SECTION 15. REGULATORY INFORMATION

Canadian Information	<u>Canada inventory (DSL/NDSL)</u> All ingredients listed appear on the Domestic Substances List (DSL).	
US Information	United States Inventory (TSCA)	

United States Inventory (TSCA) All components are listed.

International Information

Ingredients	<u>EU</u> (EINECS)	<u>Australia</u> (AICS)	<u>Philippines</u> (PICCS)	<u>Japan (ENCS)</u>	<u>Korea</u> (KECI/ KECL)	<u>China</u> (IECSC)	<u>New</u> <u>Zealand</u> <u>(IOC)</u>
Pentanedioic acid, dimethyl ester	214-277-2	Present	Present	(2)-925; (2)-857	KE- 27978	Present	HSR003381
Dimethyl succinate	203-419-9	Present	Present	(2)-848	KE- 03764	Present	HSR003468
Dimethyl Adipate	211-020-6	Present	Present	(2)-879; (2)-861	KE- 18697	Present	HSR003467



SECTION 16. OTHER INFORMATION

Date of Latest Revision	July 4, 2024
Disclaimer	The information provided in this document is correct to the best of our knowledge, information, and belief at the date of its publication. This information is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. This information is designed only as general guidance and should not be considered a warranty or quality specification. This information relates only to the specific material designated. Unless specified above, it may not be valid for such material used in combination with other materials or in any process.

END OF SAFETY DATA SHEET