

Grand River Robotics

SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Product Name : Robot Foaming Brush DIS
Other means of identification : Peracetic Acid, Acetyl Hydroperoxide, Peroxyacetic Acid
Recommended Use : Cleaning
Restrictions on Use : Reserved for industrial and professional use.

Supplier Information : Grand River Robotics
598 Glengarry Crescent
Fergus, ON
226-383-7678

Dilution rate : Up to 2.5%
Date of issue : 12/8/21
:

EMERGENCY HEALTH INFORMATION : 1 (800) 424-9300
Outside United States and Canada CALL: +1 (703) 741-5500

Section 2. Hazards Identification

GHS Classification

Oxidizing liquids : Category 3
Acute toxicity (Oral) : Category 4
Skin corrosion : Category 1A
Serious eye damage : Category 1

GHS Label Element

Hazard pictograms :



Signal Word : Danger
Hazard Statements : May intensify fire; oxidizer.
Harmful if swallowed.
Causes severe skin burns and eye damage

Precautionary Statements :

Prevention:

Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat. - No smoking. Keep away from clothing, incompatible materials and combustible materials. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Store only in the original, properly sealed vented container. Do not mix with bleach or other chlorinated products - will cause chlorine gas. Wash hands thoroughly after handling.

Response:

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all

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contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Wash contaminated clothing before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: Store locked up.

Disposal: Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None Known

Section 3. Composition / Information on Ingredients

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration (%)
Acetic acid	64-19-7	1-10
Peroxyacetic acid	79-21-0	1-5
Hydrogen peroxide	7722-84-1	12-17
Surfactant	7732-18-5	Balance

Section 4. First Aid Measures

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician : Treat symptomatically.

See toxicological information (Section 11)

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Section 5. Fire-Fighting Measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Including water and water spray.
Unsuitable extinguishing media	None known
Specific hazards during fire fighting	Oxidizing material. May intensify fire. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	Oxygen
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Specific extinguishing methods	Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Section 7. Handling and Storage

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Advice on safe handling	Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Do not ingest. Keep away from fire, sparks and heated surfaces. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation. Warning! Do not use together with other products. May release dangerous gases (chlorine).
Conditions for safe storage	Keep away from heat and sources of ignition. Keep in a cool, well ventilated place. Keep away from oxidizing agents. Keep away from reducing agents. Keep away from strong bases. Keep away from combustible material. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers. Store only in original container.
Storage temperature	-10 °C to 50 °C

Section 8. Exposure Controls / Personal Protection

Ingredients	CAS-No.	Form of Exposure	Permissible Concentration	Basis
Acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		STEL	15 ppm 37 mg/m ³	NIOSH REL
		TWA	10 ppm 25 mg/m ³	NIOSH REL
		TWA	10 ppm 25 mg/m ³	OSHA Z1
Hydrogen peroxide	7722-84-1	TWA	1 ppm	ACGIH
		TWA	1 ppm	NIOSH REL
		TWA	1 ppm 1.4 mg/m ³	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Personal protective equipment

Eye protection : Safety goggles
Face-shield

Hand protection : Wear the following personal protective equipment: Use chemical-resistant, impervious gloves. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

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Skin protection	:	Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing such as a synthetic apron.
Respiratory protection	:	When workers are facing concentrations above the exposure limit they must use a MSHA/NIOSH-approved respirator or equivalent.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Section 9. Physical and Chemical Properties

Appearance	:	Liquid
Color	:	Colorless
Odor	:	Vinegar-like, Sharp Pungent
pH	:	< 1.0, 100 %
Flash point	:	>100°C, Does not sustain combustion.
Odor Threshold	:	No data available
Freezing point	:	-49°C (-56°F)
Initial boiling point and boiling range	:	> 110 °C (230°F)
Evaporation Rate	:	>1.0; (Butyl acetate = 1)
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	22 mm Hg (25°C)
Relative vapor density	:	No data available
Relative density	:	1.2
Water solubility	:	Completely miscible (100%)
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available

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Oxidizing properties : Strong Oxidizer
Molecular weight : No data available
VOC : No data available

Section 10. Stability and Reactivity

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Warning! Do not use together with other products. May release Dangerous gases (chlorine). Hazardous reactions or instability may occur under certain conditions of storage or use. Reactions may cause or intensify fire.

Conditions to avoid : Elevated temperatures, any sources of heat, combustibles such as paper and wood and contamination. For quality purposes, avoid temperatures above 86F. Higher temperatures will accelerate decomposition resulting in loss of assay.

Incompatible materials : Bases, Metals, Organic materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

Eyes : Causes serious eye damage.

Skin : Causes severe skin burns.

Ingestion : Harmful if swallowed. Causes digestive tract burns.

Inhalation : May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

Toxicity :

Acute oral toxicity : 4 h Acute toxicity estimate : > 40 mg/l

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Acute inhalation toxicity	:	No data available
Acute dermal toxicity	:	Acute toxicity estimate : 2,221 mg/kg
Skin corrosion/irritation	:	No data available
Serious eye damage/eye irritation	:	No data available
Respiratory or skin sensitization	:	No data available
Carcinogenicity IARC	:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Carcinogenicity OSHA	:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Carcinogenicity NTP	:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive effects	:	No data available
Germ cell mutagenicity	:	No data available
Teratogenicity	:	No data available
STOT-single exposure	:	No data available
STOT-repeated exposure	:	No data available
Aspiration toxicity	:	No data available

Section 12. Ecological Information

Ecotoxicity

Environmental Effects : Toxic to aquatic life.

Product

Toxicity to fish : No data available

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

Ingredients

Toxicity to fish : Acetic acid 96 h LC50: 75 mg/l
Peroxyacetic acid 96 h LC50: 0.8 mg/l

Toxicity to daphnia and other aquatic invertebrates : Peroxyacetic acid 48 h EC50: 0.73 mg/l

Toxic to algae : Peroxyacetic acid 72 h EC50: 0.7 mg/l
Hydrogen peroxide 72 h EC50: 1.38 mg/l

Persistence and degradability : The fate of peracetic in water will be influenced by abiotic degradation, which yields acetic acid and oxygen, and hydrolysis, which forms acetic acid and hydrogen peroxide, both of which are easily biodegradable compounds.

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Bioaccumulative potential	:	Based on its low octanol-water partition coefficient and its rapid degradation in the environment, this product is not bioaccumuable.
Mobility in soil	:	Peracetic acid released in the environment will partition almost exclusively (>99%) to the water compartment. Only a minor part (<1%) will remain in the atmosphere, where it is expected to undergo rapid decomposition with a half-life of 22 minutes. The fate of peracetic acid in the environment is mainly determined by its degradation.
Other adverse effects	:	No data available
Remarks	:	-Toxic to aquatic organisms -Hazard for the environment is limited due to product properties: considerable abiotic and biotic degradability, weak persistence of degradation products. -Does not bio accumulate

Section 13. Disposal Considerations

Disposal methods	:	The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations	:	Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste	:	D002 (Corrosive) D001 (Ignitable)
US EPA Waster Number	:	D002

Section 14. Transport Information

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

UN number	:	3098
Description of the goods	:	Oxidizing liquid, corrosive, n.o.s. (peroxyacetic acid)
Class	:	5.1
Subsidiary class	:	8
Packing group	:	II
Environmentally hazardous	:	no

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Sea transport (IMDG/IMO)

UN number : 3098
 Description of the goods : Oxidizing liquid, corrosive, n.o.s. (peroxyacetic acid)
 Class : 5.1
 Subsidiary class : 8
 Packing group : II
 Environmentally hazardous : No

Section 15. Regulatory Information

EPA Registration Number : 91628-1
 EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity :

Ingredients	CAS-No	Component RQ (lbs)	Calculated product RQ (lbs)
Acetic Acid	64-19-7	5000	94,339

SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No	Component RQ (lbs)	Calculated product RQ (lbs)
Peroxyacetic acid	79-21-0	500	9,433

SARA 311/312 Hazards : Fire Hazard
 Acute Health Hazard

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:

Peroxyacetic acid 79-21-0 5.3 % 500 lbs

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Peroxyacetic acid 79-21-0 5.3 %

California Prop 65 : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

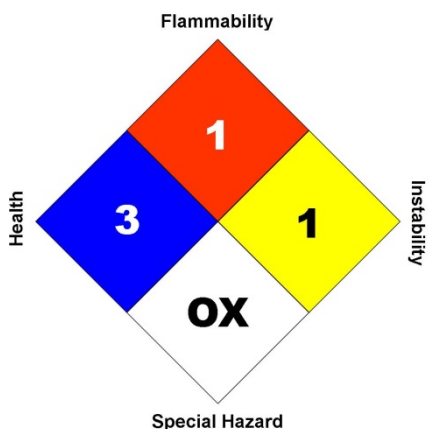
- United States TSCA Inventory** : All components are listed or exempted.
- Canadian Domestic Substances List (DSL)** : All components of this product are on the Canadian DSL.
- Australia Inventory of Chemical Substances (AICS)** : On the inventory, or in compliance with the inventory
- New Zealand. Inventory of Chemical Substances** : On the inventory, or in compliance with the inventory
- Japan. ENCS - Existing and New Chemical Substances Inventory** : On the inventory, or in compliance with the inventory
- Japan. ENCS - Existing and New Chemical Substances Inventory** : On the inventory, or in compliance with the inventory

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Japan. ISHL - Inventory of Chemical Substances : On the inventory, or in compliance with the inventory
 Korea. Korean Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory
 Philippines Inventory of Chemicals and Chemical Substances (PICCS) : On the inventory, or in compliance with the inventory
 China. Inventory of Existing Chemical Substances in China (IECSC) : On the inventory, or in compliance with the inventory

Section 16. Other Information



HMIS III:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = Not Significant, 1 = Slight
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

Issuing date : 12/8/21
 Version : 1.0
 Prepared by : RJD

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.