

S A F E T Y D A T A S H E E T



3141 Clifty Drive • Madison, IN 47250

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

NAME: **MACHINE-GARD® 300X**

TYPE: Acidic Cleaner
PRODUCT # 769521

FOR INDUSTRIAL USE ONLY – KEEP OUT OF THE REACH OF CHILDREN

EMERGENCY RESPONSE INFORMATION:

| | | |
|------------------|--------------|-----------------------|
| CHEMTREC | 800-424-9300 | 24-Hour Service |
| Company Offices: | 812-273-6000 | Weekdays |
| Cara Cyrus: | 812-599-3611 | Evenings and Weekends |
| Bill Torline: | 812-599-4976 | Evenings and Weekends |

PREPARED DATE: 04-01-15 **PREPARED BY:** David Craft

SECTION 2: HAZARDS IDENTIFICATION

| | | | |
|---------------------------|-----------------------------------|-------------|------|
| GHS Classification | Corrosive to Metals | Category 1 | H290 |
| | Acute Toxicity, oral | Category 4 | H302 |
| | Skin Corrosion/Irritation | Category 1A | H314 |
| | Serious Eye Damage/Eye Irritation | Category 1 | H318 |

Signal Word

DANGER

Symbol



| | | |
|--------------------------|------|--|
| Hazard Statements | H290 | May be corrosive to metals. |
| | H302 | Harmful if swallowed |
| | H314 | Causes severe skin burns and eye damage. |
| | H318 | Causes serious eye damage. |

Precautionary Statements

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| P260 | Do not breathe mist, spray, vapors. |
| P234 | Keep only in original container. |
| P264 | Wash hands, forearms, and exposed areas thoroughly after handling |
| P280 | Wear eye protection, face protection, protective clothing, protective gloves. |
| P301 + P330 + P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P321 | Specific treatment (see Section 4). |
| P363 | Wash contaminated clothing before reuse. |
| P390 | Absorb spillage to prevent material damage. |
| P405 | Store locked up. |
| P406 | Store in corrosive resistant container with a resistant inner liner. |
| P501 | Dispose of contents / container according to local, regional, national and international regulations. |

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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

| <u>COMPONENT</u> | <u>SYNONYM</u> | <u>CAS NO.</u> | <u>% BY WEIGHT</u> |
|------------------|----------------------|----------------|--------------------|
| Nitric acid | Aquafortis | 7697-37-2 | 20 - 30 |
| Phosphoric acid | Orthophosphoric acid | 7664-38-2 | 15 - 25 |

SECTION 4: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES:

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| EYES: | Immediately flush with large quantities of cool water continuously for at least 15 minutes. Call a physician. |
| SKIN: | Immediately flush with large quantities of cool water continuously for at least 15 minutes. Call a physician. Remove contaminated clothing and shoes. Do not put contaminated clothing and shoes back on. Wash clothing and shoes thoroughly in soap and water; rinse repeatedly in clean water and dry before reuse. |
| INGESTION: | Do NOT induce vomiting. Give water. Never give anything by mouth if the person is unconscious or if having convulsions. Call a physician. |
| INHALATION: | Remove subject to fresh air and get medical attention. |
| PRIMARY ROUTE(S) OF ENTRY: | Eyes, skin, inhalation, mucous membranes |
| MOST IMPORTANT SYMPTOMS / EFFECTS, ACUTE AND DELAYED: | |
| GENERAL: | Causes serious skin burns and eye damage. |
| EYE CONTACT: | Causes serious eye irritation. |
| SKIN CONTACT: | May cause skin irritation. Corrosive. Causes burns. |
| INGESTION: | Harmful if swallowed. |
| INHALATION: | May cause nasal and respiratory irritation. |
| CHRONIC SYMPTOMS: | None expected under normal conditions of use. |

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY:

If you experience any of the symptoms / effects listed above seek medical advice.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

Use extinguishing media as appropriate for surrounding fire.

SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Product is not explosive, however this product reacts with most metals to release hydrogen gas which can form explosive mixtures with air. Hazardous reactions will not occur under normal conditions.

ADVICE FOR FIRE FIGHTERS:

Wear self-contained breathing apparatus with full face piece operated in positive pressure mode and full body protective clothing. Use water spray to keep containers cool. **Hazardous Combustion Products:** Nitrogen oxides, phosphorous oxides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:

Avoid all contact with skin, eyes and clothing. Avoid breathing vapors. Wear nitrile rubber or neoprene gloves. Goggles and face shield necessary. Wear full protective acid resistant clothing. Use NIOSH / MSHA approved positive pressure self-contained breathing apparatus when any material is involved in a fire.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Contain liquid spills with sand and absorb on soda ash. Dispose with solid waste. See Waste Disposal Method. Ventilate area. Do not discharge to sewers or waterways without proper treatment. Contact state and federal environment organizations if RQ is exceeded.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Wear proper safety equipment when handling this product. Handle in accordance with good industrial hygiene and safety procedures.

CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:

Normal for acidic materials. Store away from alkalis. Keep container closed when not in use. Always add acids to water; never add water to acids.

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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

CHEMICAL IDENTITY

| | <u>CAS NO.</u> | <u>OSHA PEL</u> | <u>ACGIH TLV</u> |
|-----------------|----------------|--------------------|---------------------|
| Nitric acid | 7697-37-2 | 2 ppm | 2 ppm |
| Phosphoric acid | 7664-38-2 | 1mg/M ³ | 1 mg/M ³ |

ENGINEERING CONTROLS:

Use good ventilation. Local exhaust is recommended if TLVs are exceeded.

INDIVIDUAL PROTECTION MEASURES:

Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

RESPIRATORY PROTECTION:

In absence of proper environmental control, use NIOSH / MSHA approved inorganic acid vapor respirator for mists where airborne exposure is excessive.

SKIN PROTECTION:

Nitrile rubber, neoprene gloves. Other equipment as required to avoid contact.

EYE PROTECTION:

Goggles and face shield necessary.

GENERAL HYGIENE CONSIDERATIONS:

Eyewash facility and emergency shower should be in close proximity. Always wash hands after handling any chemical.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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| APPEARANCE: | Clear, red liquid. |
| ODOR: | Mild acid |
| ODOR THRESHOLD: | Not available. |
| pH (100%): | 0.3 – 0.5 |
| MELTING POINT/FREEZING POINT | 12°F. |
| INITIAL BOILING POINT AND BOILING RANGE | 215°F (101°C) |
| FLASH POINT (METHOD USED) | Not available. |
| EVAPORATION RATE | Not available. |
| FLAMMABILITY (SOLID, GAS) | Not available. |
| UPPER/LOWER FLAMMABLE OR EXPLOSIVE LIMIT | Not available. |
| VAPOR PRESSURE | Not available. |
| VAPOR DENSITY | Greater than 1.0 |
| SPECIFIC GRAVITY | 1.22 |
| SOLUBILITY IN WATER | Complete. |
| PARTITION COEFFICIENT: N-OCTANOL/WATER | Not available. |
| AUTO-IGNITION TEMPERATURE | Not available. |
| VISCOSITY, DYNAMIC | Not available. |
| DECOMPOSITION TEMPERATURE | Not available. |
| VISCOSITY | Not available. |

SECTION 10: STABILITY AND REACTIVITY

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|-------------------------------------|--|
| REACTIVITY: | Hazardous reactions will not occur under normal conditions. |
| CHEMICAL STABILITY: | Contains an oxidizing material which may accelerate fire. |
| POSSIBILITY OF HAZARDOUS REACTIONS: | Hazardous polymerization will not occur. |
| CONDITIONS TO AVOID: | Extremely high temperatures. , Incompatible materials. |
| INCOMPATIBLE MATERIALS: | Strong bases. Organic materials, Reducing agents. Metals, may be corrosive to metals. Sulfides, carbides, alcohols, and cyanides. |
| HAZARDOUS DECOMPOSITION PRODUCTS: | Nitrogen oxides, phosphorous oxides. |

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SECTION 11: TOXOLOGICAL INFORMATION

| | | |
|---|---|-------------------------------|
| ACUTE TOXICITY: | Not classified | |
| LD50 AND LC50 DATA: | Not available. | |
| ROUTES OF EXPOSURE / SYMPTOMS | | |
| EYES: | DANGER! Causes burns. | |
| SKIN: | DANGER! Causes burns. | |
| INGESTION: | WARNING! Harmful if swallowed. | |
| INHALATION: | WARNING! May cause nasal and respiratory irritation. | |
| GERM CELL MUTAGENICITY: | Not classified. | |
| TERATOGENICITY: | Not available. | |
| CHRONIC EFFECTS / CARCINOGENICITY: | This material contains no ingredients above de minimus concentrations known or suspected to cause cancer. | |
| SPECIFIC TARGET ORGAN TOXICITY (Repeated exposure): | Not classified. | |
| REPRODUCTIVE TOXICITY: | Not classified. | |
| SPECIFIC TARGET ORGAN TOXICITY (Single exposure): | Not classified. | |
| ASPIRATION HAZARD: | Not classified. | |
| COMPONENT INFORMATION: | | |
| Nitric acid | LD50 Oral Rat | Greater or equal to 90 ml/kg |
| | LC50 Inhalation Rat | 260 mg/M ³ |
| | LC50 Inhalation Rat | 67 ppm NO ₂ / 4 hr |
| Phosphoric acid | LD50 Oral Rat | 1530 mg/kg |

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY COMPONENT INFORMATION The ecotoxicity of this product is not known.

| | |
|-----------------|---|
| Nitric acid | Freshwater Fish Data: No data available. Invertebrate Toxicity Data: No data available |
| Phosphoric acid | Freshwater Fish Data: No data available. Invertebrate Toxicity Data: No data available |

PERSISTENCE AND DEGRADABILITY: Not available.
BIOACCUMULATIVE POTENTIAL: Bioaccumulation potential is low
MOBILITY IN SOIL: Not available.
OTHER ADVERSE EFFECTS: This material contains no hazardous air pollutants (HAPS).

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD Normal for acidic wastes. May require pH adjustment for neutralization. Dispose in accordance with local, state and federal regulations.

SECTION 14: TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Corrosive liquid, acidic, inorganic, n.o.s. (contains nitric acid and phosphoric acid)
HAZARD CLASS: 8
IDENTIFICATION NUMBER: UN3264
PACKING GROUP: III
EMERGENCY RESPONSE GUIDE: ERG #154

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SECTION 15: REGULATORY INFORMATION

VOC: 0 pounds per gallon (0 grams per liter).
TSCA STATUS All ingredients are listed on the TSCA inventory.
CERCLA REPORTABLE QUANTITY 1,000 pounds for nitric acid (approximately 372 gallons).
5,000 pounds for phosphoric acid (approximately 2,022 gallons).

SARA 311 / 312 HAZARD CLASSES

| | |
|---|----------------------------|
| x | ACUTE HEALTH |
| | FIRE |
| | SUDDEN RELEASE OF PRESSURE |
| | CHRONIC HEALTH |
| | REACTIVE |

SARA 312 INFORMATION

Nitric acid is an extremely hazardous substances (EHS) under SARA. The threshold planning quantity is 1,000 pounds. Storage of more than 372 gallons would require filing a Tier 2 form.

SARA 313 INFORMATION

This material contains the following substances subject to the reporting requirements of Section 313 of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

CHEMICAL NAME
Nitric acid*

CATEGORY CODE
Not Applicable

CAS NUMBER
7697-37-2

% BY WEIGHT
25

*pH adjustment will generate a nitrate compound listed under Section 313 of SARA.

STATE REGULATORY INFORMATION

CALIFORNIA PROPOSITION 65

California has not identified the ingredients listed in Section 3 as known to cause cancer or reproductive toxicity.

SECTION 16: OTHER INFORMATION

MSDS STATUS: Revised to GHS Standards on 04-01-15.

| | |
|------------------------|----------|
| HEALTH | 3 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |

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