

CHEMTRONICS®

Technical Data Sheet

TDS # 3294

Max-Kleen™ Mighty Wash™

The powerful, industrial grade aqueous degreaser

PRODUCT DESCRIPTION

Max-Kleen™ Mighty Wash™ is specifically formulated for removal of all types of soils including oxidized grease, sludge, wax, tar and oil. Available in a convenient, ready-to use trigger spray or a concentrate ready for dilution, Max-Kleen™ Mighty Wash™ offers all the cleaning power for hard-to-remove soils. The water-based cleaning solution quickly penetrates, emulsifies and lifts the toughest grime, without the problems of VOC's and butyl. The low surface tension provides for superior wetting to clean in even the toughest soils. Max-Kleen™ Mighty Wash is registered with the NSF as a C1 cleaner for use in food processing facilities.

- Strongest water-based formula available
- Available in both, ready-to-use (RTU) trigger spray and water dilutable concentrate formula
- Heavy-duty cleaning performance
- Prevents flash rusting and corrosion
- Biodegradable
- Low foaming
- Nonflammable
- Ozone safe, butyl-free, and low VOC's
- CARB and OTC compliant

TYPICAL APPLICATIONS

Max-Kleen™ Mighty Wash™ can be used for all repair, maintenance, and manufacturing cleaning applications including:

- Removes grease, oil and lubricants
- Ideal for metal parts cleaning and tools
- All repair and maintenance cleaning
- Cleans electric motors and gasoline engines
- Removes tough soils from gears and pulleys
- Use for maintenance of air compressors

TYPICAL PRODUCT DATA AND PHYSICAL PROPERTIES

Boiling Point	212° F (Initial)
Evaporation Rate (butyl acetate=1)	<1
Flash Point (TCC)	None
Specific Gravity	1.00 / 1.02 (RTU / concentrate)
Vapor Pressure @68°F	<0.02 mmHg
Appearance	Clear, green liquid
Odor	Mild Citrus
Solubility in Water	100%
pH	12.0
Shelflife	2 years
CARB & OTC VOC Content	0% VOC
SCAQMD VOC Content	90 g/L trigger sprayer RTU 270 g/L concentrate* (1:11 dilution – 24.5 g/L)
NSF-Registered C1	#139467 (RTU) #139466 (concentrate)

* SCAQMD Rule 1122 compliant when concentrate is diluted 1:11

COMPATIBILITY

Max-Kleen™ Mighty Wash™ is compatible with most metals and plastics. Avoid spraying on painted parts, glass, aluminum, copper and other soft metals. As with any solvent, compatibility with substrate should be determined on a non-critical area prior to use.

<u>Material</u>	<u>Compatibility</u>
ABS	Excellent
Buna-N	Excellent
EPDM	Excellent
Graphite	Excellent
HDPE	Excellent
PVDF	Excellent
LDPE	Excellent
Lexan™	Excellent
Neoprene	Excellent
Noryl®	Excellent
Nylon™ 66	Excellent
Polycarbonate	Excellent
Polypropylene	Excellent
Polystyrene	Excellent
PVC	Excellent
Silicone Rubber	Excellent
Teflon™	Excellent
Viton™	Excellent

SAFETY & ENVIRONMENTAL DATA

SAFETY & ENVIRONMENTAL DATA			
CFC	0.0%	VOC - CARB & OTC	0.0%
nPB	0.0%	VOC - SCAQMD	9.0% RTU 27.0% conc.
HCFCs	0.0%	HFC	0.0%

CFC, HCFCs, VOC, HFC, and nPB percentages shown are the content by weight.

NOTE:

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. ITW CHEMTRONICS® does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

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USAGE INSTRUCTIONS

Read MSDS carefully prior to use.

Spray Max-Kleen™ Mighty Wash on the surface to be cleaned. Wipe away soils with a Controlwipes™ Wipe, or rinse with clean water. When used to clean food equipment that will be returned to a food processing area, wash Max-Kleen™ Mighty Wash off the equipment and then rinse well with potable water.

Can be used in hot or cold immersion, ultrasonic or aqueous cleaning systems. For immersion systems, soak as necessary. Parts can also be cleaned with a pressure sprayer by spraying parts from top to bottom, allowing the liquid to flush away dirt and dissolved grease. Avoid spraying on painted parts, glass, aluminum, copper and other soft metals.

Dilution ratios for concentrate:	<u>Water : Conc</u>
Heavy grease, oxidized oils and grime	2:1
Fiberglass, Plastics	5:1
General cleaning	10:1
Dip tanks	10:1
Parts washers	20:1
Ultrasonic cleaners	20:1
Pressure cleaning systems	60:1

AVAILABILITY

ES3294	32 oz trigger sprayer
ES194G	1 gallon concentrate

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Information: 800-TECH-401

Product Identification**Max-Kleen™ Mighty Wash™ RTU****Product Code: ES3294****SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS#	Wt. % Range
Deionized water	7732-18-5	70.0-90.0
Tripropylene glycol methyl ether	25498-49-1	5.0-10.0
Sodium hydroxide	1310-73-2	0.1-1.0
Diethanolamine	111-42-2	0.1-1.0
Sodium metasilicate	6834-92-0	< 0.1
Cocoamide DEA	68603-42-9	0.1-1.0
Amine sulfonate	mixture	1.0-5.0

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview: Clear green liquid with mild citrus odor. Liquid will irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product vapor may produce central nervous system depression. This product is not flammable.

Potential Health Effects:

Eyes: DO NOT get in eyes. This product is irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation.

Skin: Contact may cause skin irritation.

Ingestion: DO NOT take internally. Harmful if swallowed. Irritating to mouth, throat and stomach. May cause vomiting.

Inhalation: Excessive inhalation of spray can cause nasal and respiratory irritation and central nervous system effects including dizziness, weakness, fatigue, nausea, headache and unconsciousness.

Pre-Existing Medical Conditions Aggravated by Exposure: Lung, skin, eye and central nervous system.

SECTION 4: FIRST AID MEASURES

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel if irritation develops or persists.

Skin: Wash skin with soap and water immediately. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.

Ingestion: Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get immediate medical attention.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: >200°F (93C) TCC

LEL/UEL: Not established (% by volume in air)

Extinguishing Media: Use water fog, carbon dioxide, or dry chemical when fighting fires involving this material.

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Large Spills: Shut off leak if possible and safe to do so. Wear self-contained breathing apparatus and appropriate personal protective equipment. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal. Do not flush to sewer. Avoid runoff into storm sewers and ditches which lead to waterways.

Small Spills: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal.

SECTION 7: HANDLING AND STORAGE

Avoid prolonged or repeated contact with eyes, skin, and clothing. Wash hands thoroughly after handling or contact. Use with adequate ventilation. Avoid breathing product spray or mist. Store in a cool dry place away from heat, sparks and flame. Keep container closed when not in use. Do not store in direct sunlight.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION**Exposure Guidelines:**

CHEMICAL NAME	ACGIH TLV	OSHA PEL	ACGIH STEL
Tripropylene glycol methyl ether	NA	NA	NA
Propylene glycol butyl ether	NA	NA	NA
Sodium hydroxide	2 mg/m3	2 mg/m3	NA
Diethanolamine	0.46 ppm (skin)	NA	NA
Sodium metasilicate	NA	NA	NA

Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. If vapor concentration exceeds TLV, use NIOSH approved organic vapor cartridge respirator. Wear safety glasses with side shields (or goggles) and rubber or other chemically resistant gloves when handling this material.

NFPA and HMIS Codes:

	NFPA	HMIS
Health	1	1
Flammability	0	0
Reactivity	0	0
Personal Protection	-	B

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear green liquid
Odor: Mild citrus
pH: 12.0
Vapor Pressure: <1 mm Hg @ 25C
Vapor Density: Not available
Boiling Point: 212 F (100C)

Solubility in Water: Completely
Specific Gravity: (Water =1) 1.00
Evaporation Rate: <1 (Butyl acetate=1)
Melting Point: NA
Percent Volatile: 95%

SECTION 10: STABILITY AND REACTIVITY

Stability - This product is stable. Conditions to Avoid: Do not spray near open flames, red hot surfaces or other sources of ignition.
Incompatibility: Do not mix with aluminum, galvanized iron and zinc, or strong acids or oxidizing agents.
Products of Decomposition: Thermal decomposition may release carbon monoxide, carbon dioxide and incompletely burned hydrocarbons.
Hazardous Polymerization: Will not occur
Conditions to Avoid: NA

SECTION 11: TOXICOLOGICAL INFORMATIONIngestion:

Sodium metasilicate	LD50/rats	1153 mg/kg
Tripropylene glycol methyl ether	LD50/rat	3200 mg/kg

Inhalation:

Mixture	Moderate Irritant
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Skin:

Tripropylene glycol methyl ether	LD50/rabbits	>20 ml/kg
Sodium metasilicate	Human	250 mg/24H SEV

Eye:

Mixture	Moderate Irritant
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Cancer Information: No ingredients listed as human carcinogens by NTP or IARC

Reproductive effects: none

Teratogenic effects: none

Mutagenic effects: none

SECTION 12: ECOLOGICAL INFORMATION**Environmental Impact Information**

Avoid runoff into storm sewers and ditches which lead to waterways. Water runoff can cause environmental damage.

REPORTING

US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is: 1-800-424-8802

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage.

SECTION 14: TRANSPORTATION INFORMATION

<u>Air and Ground:</u>	Proper
	Shipping Name
	Cleaning Compound
	Not Regulated

SECTION 15: REGULATORY INFORMATION**SECTION 313 SUPPLIER NOTIFICATION**

This product contains no toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

This information should be included on all MSDSs copied and distributed for this material.

TOXIC SUBSTANCES CONTROL ACT (TSCA)

All ingredients of this product are listed on the TSCA Inventory.

WHMIS: Class D2B

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16: OTHER INFORMATION

Normal ventilation for standard manufacturing practices is usually adequate. Local exhaust should be used when large amounts are released.

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.