

Safety Data Sheet

Material Name: ARMAKLEEN Rust Remover

SDS ID: 82949

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

ArmaKleen Rust Remover

Product Code

6347 6447

Formula Code 42000145

Synonyms

Not available.

Product Use

Aqueous, acidic concentrated rust remover and cleaner that is to be diluted with water. Concentrated cleaner must be diluted prior to use to meet local, state, and provincial VOC regulations. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Restrictions on Use

For professional use only.

MANUFACTURER

Safety-Kleen Systems, Inc.
42 Longwater Drive
Norwell, MA 02061-9149 U.S.A.
Phone: 1-800-669-5740
www.safety-kleen.com

SUPPLIER (in the U.S.A.)

Safety-Kleen Systems, Inc.
42 Longwater Drive
Norwell, MA 02061-9149
Phone: 1-800-669-5740
www.safety-kleen.com

SUPPLIER (In Canada)

Safety-Kleen Canada Inc.
25 Regan Road
Brampton, Ontario, Canada L1A 1B2
Phone: 1-800-669-5740

Emergency Telephone Number

Medical: 1-888-234-1828 Chemical: 1-800-255-3924 (CHEMTEL)

Issue Date

January 21, 2025

Supersedes Issue Date

May 5, 2021

Original Issue Date

September 17, 2003

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with Schedule 1 of Canada's Hazardous Products Regulations (HPR) (SOR/2015-17) and paragraph (d) of 29 CFR 1910.1200 in the United States

Corrosive to Metals - Category 1
Acute Toxicity - Oral - Category 4
Skin Corrosion/Irritation - Category 1A
Serious Eye Damage/Eye Irritation - Category 1
Health Hazard Not Otherwise Classified - Category 1

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GHS Label Elements

Symbol(s)



Signal Word

Danger.

Hazard Statement(s)

May be corrosive to metals.
Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes severe damage to the respiratory tract.

Precautionary Statement(s)

Prevention

Keep only in original container. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product.

Response

Absorb spillage to prevent material damage. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor. 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.

Storage

Store in corrosive resistant container with a resistant inner liner. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Do not store below 40°F (4.4°C).

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards

Contact with diluted heated product can cause serious thermal burns.

Statement of Unknown Toxicity

0% of the mixture consists of ingredient(s) of unknown acute toxicity.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Purified Water	26-28
7664-38-2	Phosphoric acid	57-62
68439-46-3	Alcohols, C9-11, ethoxylated	4.8-5.3
1643-20-5	1-Dodecanamine, N,N-dimethyl-, N-oxide	0.86-0.95

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2687-94-7

2-Pyrrolidinone, 1-octyl-

0.4-0.5

Section 4 - FIRST AID MEASURES

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.

Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. For thermal burns caused by diluted heated product, remove affect clothing and shoes. Wash thoroughly with cool water. Apply cool packs or ice.

Eyes

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.

Ingestion

IF SWALLOWED: Rinse mouth. If swallowed, do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

Most Important Symptoms/Effects

Acute

Causes skin burns, eye burns. Causes severe damage to the respiratory tract. May cause severe irritation or chemical burns. Contact with diluted heated product can cause severe burns to the eyes and skin and can result in permanent eye damage.

Delayed

Repeated or prolonged exposure may result in burns to mucous membranes of the respiratory tract.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively. Avoid gastric lavage. Treatment may vary with condition of victim and specifics of incident.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not applicable. Use media appropriate for surrounding fire.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Negligible fire hazard. Heated diluted product may cause thermal burns.

Hazardous Combustion Products

Product itself does not burn, but may decompose upon heating to product carbon monoxide, nitrogen oxide.

Advice for firefighters

Containers may rupture if heated or exposed to continual naked flame.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Keep storage containers cool with water spray. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

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Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Spilled product is slippery. Do not touch or walk through spilled product. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean tool into a sealable container for disposal. Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from naked flame. Do not breathe dust or vapors. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Acid reacts with water and can splatter acid onto personnel. When diluting, cautiously mix product and water together while stirring.

Conditions for Safe Storage, Including any Incompatibilities

Store in corrosive resistant container with a resistant inner liner. Keep container tightly closed when not in use and during transport. Store containers in a cool, dry well-ventilated place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. Do not store below 40°F (4.4°C)

Incompatible Materials

Strong acids, oxidizers, bases, reducing agents, halogens, metals.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Phosphoric acid	7664-38-2
Alberta, British Columbia, New Brunswick, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Saskatchewan, Yukon, Quebec	1 mg/m3 TWA
	3 mg/m3 STEL
Manitoba	1 mg/m3 TWA
ACGIH	1 mg/m3 TWA
	3 mg/m3 STEL
NIOSH	1 mg/m3 TWA

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	3 mg/m3 STEL
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ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear safety glasses. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Eye wash fountain and emergency showers are recommended. Contact lens use is not recommended.

Respiratory Protection

A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

Skin Protection/Glove Recommendations

Where skin contact is likely, wear gloves impervious to product; use of natural rubber (latex) or equivalent gloves is not recommended. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant face shield, boots, apron, whole body suits or other protective clothing. When diluted product is heated and skin contact is likely, wear heat-resistant gloves, boots, and other protective clothing.

Protective Materials

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, Gloves, Lab coat or apron.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, straw colored liquid	Physical State	Liquid
Odor	Mild ,soapy odor	Color	Straw colored
Odor Threshold	Not available	pH	<1
Melting Point	32°F (0 °C)	Boiling Point	212°F (100 °C)
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	(Equal to water.)	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	>212°F (>100 °C)
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	11 mmHg @20°C
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	1.43

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Water Solubility	(complete)	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	Not available	Molecular Weight	Not available
Volatile Organic Compounds (As regulated)	3.28 WT%; .39 LB/US gallon; 47 g/L As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 11 mmHg Consult with your state/local air pollution control agency and their rules/regulations for specific direction in your specific area.		

Section 10 - STABILITY AND REACTIVITY

Reactivity

Corrosive to metals. Contact with most metals produces highly flammable hydrogen gas. May react on contact with water. Reacts violently with alkali.

Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Polymerization is not known to occur under normal temperature and pressures.

Conditions to Avoid

Avoid naked flame and direct sunlight. Corrosive to metals.

Incompatible Materials

Strong acids, oxidizers, bases, reducing agents, halogens, metals.

Hazardous decomposition products

None under normal temperatures and pressures. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

Thermal decomposition products

Carbon monoxide, nitrogen oxides (NO_x), hydrogen, phosphorus oxides.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Causes severe damage to the respiratory tract. Repeated or prolonged exposure may result in burns to mucous membranes of the respiratory tract.

Skin Contact

Causes burns. Contact with diluted heated product may cause serious thermal burns.

Eye Contact

Causes eye burns.

Ingestion

May cause severe burns of the mouth, throat, and gastrointestinal tract.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Phosphoric acid (7664-38-2)

Oral LD50 Rat 1530 mg/kg; Dermal LD50 Rabbit 2740 mg/kg; Inhalation LC50 Rat >850 mg/m³ 1 h

Alcohols, C9-11, ethoxylated (68439-46-3)

Oral LD50 Rat 1400 mg/kg

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2-Pyrrolidinone, 1-octyl- (2687-94-7)

Oral LD50 Rat 2050 mg/kg; Dermal LD50 Rabbit 2000 mg/kg

Product Toxicity Data

Product Analysis LD/LC 50 Toxicity Values

Oral LD50:	1717 mg/kg oral
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Acute Toxicity Estimate

Dermal	> 2000 mg/kg
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Immediate Effects

Causes eye and skin burns. Causes severe damage to the respiratory tract.

Delayed Effects

Repeated or prolonged exposure may result in burns to mucous membranes of the respiratory tract.

Irritation/Corrosivity Data

Causes burns. Causes severe damage to the respiratory tract. Contact with diluted heated material may cause burns.

Respiratory Sensitization

Based on best current information, there is no known human sensitization associated with this product.

Dermal Sensitization

May cause dermatitis and defatting.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, or OSHA

Germ Cell Mutagenicity

Based on best current information, there is no known teratogenicity associated with this product.

Experimental evidence suggests that this product does not cause mutagenesis.

Tumorigenic Data

No data available

Reproductive Toxicity

Based on best current information, there is no known reproductive toxicity associated with this product.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

Based on available data, the classification criteria are not met.

Medical Conditions Aggravated by Exposure

Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

No ecotoxicity data are available for this product's components. Low pH (acidity) of product may be harmful to aquatic life.

Invertebrate Toxicity

No additional information is available.

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

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Mobility

No information available for the product.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

USEPA Waste Code: D002 Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact ArmaKleen regarding proper recycling or disposal.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (Contains: Phosphoric acid)

Hazard Class: 8

UN/NA #: UN3264

Packing Group: II

Required Label(s): 8

IATA Information:

Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (Contains: Phosphoric acid)

Hazard Class: 8

UN#: UN3264

Packing Group: II

Required Label(s): 8

TDG Information:

Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (Contains: Phosphoric acid)

Hazard Class: 8

UN#: UN3264

Packing Group: II

Required Label(s): 8

Section 15 - REGULATORY INFORMATION

Canada Regulations

CEPA - Priority Substances List

None of this product's components are on the list.

Ozone Depleting Substances

None of this product's components are on the list

Council of Ministers of the Environment - Soil Quality Guidelines

None of this product's components are on the list

Council of Ministers of the Environment - Water Quality Guidelines

None of this product's components are on the list

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Phosphoric acid	7664-38-2
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CERCLA:	5000 lb final RQ ; 2270 kg final RQ
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SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes Chronic Health: No Fire: No Pressure: No Reactivity: No

Component Analysis - Inventory

Phosphoric acid (7664-38-2), Alcohols, C9-11, ethoxylated (68439-46-3), 1-Dodecanamine, N,N-dimethyl-, N-oxide (1643-20-5), 2-Pyrrolidinone, 1-octyl- (2687-94-7)

US	CA
Yes	DSL

Component Analysis - Inventory

Phosphoric acid (7664-38-2), Alcohols, C9-11, ethoxylated (68439-46-3), 1-Dodecanamine, N,N-dimethyl-, N-oxide (1643-20-5), 2-Pyrrolidinone, 1-octyl- (2687-94-7)

MA	NJ	PA
Yes	Yes	Yes

Not listed under California Proposition 65.

Section 16 - OTHER INFORMATION

Other Information

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

NFPA Ratings

Health: 3 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe

Summary of Changes

Update to logo and Manufacturer information.

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EPA - Environmental Protection Agency; F - Fahrenheit; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NDSL - Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; WHMIS - Workplace Hazardous Materials Information System (Canada).

Disclaimer:

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, ArmaKleen assumes no liability whatsoever for the accuracy or

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completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplied to the user.