



Safety Data Sheet

Material Name: ArmaKleen MM-Recycle Cleaning Solution

SDS ID: 82792

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

ArmaKleen MM-Recycle Cleaning Solution

Product Code

6328

Product Use

Aqueous cleaner that has been diluted with water for cleaning a variety of materials in high-pressure spray and immersion machines. 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

Church & Dwight
The ArmaKleen™ Company
469 North Harrison Street
Princeton, NJ 08543
Phone: (800) 332-5424
www.churchdwight.com

SUPPLIER (in the U.S.A.)

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

SUPPLIER (in Canada)

Safety-Kleen Canada Inc.
25 Regan Road
Brampton, Ontario, Canada L7A 1B2
Phone: 1-800-669-5740

Emergency Telephone Number

1-800-468-1760

Issue Date

May 5, 2021

Supersedes Issue Date

March 21, 2021

Original Issue Date

November 27, 2001

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

None needed according to classification criteria

GHS Label Elements

Symbol(s)

None needed according to classification criteria

Signal Word

None needed according to classification criteria

Hazard Statement(s)

None needed according to classification criteria.

Precautionary Statement(s)

Prevention

None needed according to classification criteria.

Response

None needed according to classification criteria.

Storage

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None needed according to classification criteria. Do not store below 40°F (4.4°C).

Disposal

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

Other hazards

High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). Contact with heated material can cause serious thermal burns.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Water	93-100
298-14-6	Monopotassium carbonate	0.70-0.78
29911-28-2	2-Propanol, 1-(2-butoxy-1-methylethoxy)	0.29-0.32
584-08-7	Carbonic acid, dipotassium salt	0.14-0.16
108-91-8	Cyclohexamine	0.026-0.028

Section 4 - FIRST AID MEASURES

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention, if needed.

Skin

IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation occurs: Call a POISON CENTER or doctor. For thermal burns cause by contact with hot product, remove affected clothing and shoes. Wash skin thoroughly with cool water. Apply cool-packs or ice.

Eyes

IF IN EYES: If irritation or redness from exposure to vapor or mist develops, move away from exposure and rinse cautiously with water for 5 minutes. Upon direct contact with liquid, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention, if needed.

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms/Effects

Acute

May cause skin irritation. May cause eye irritation. May cause respiratory irritation. Contact with heated product can cause severe burns to the eyes and skin and can result in permanent eye damage.

Delayed

No significant adverse effects expected.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

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Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use extinguishing agents appropriate for surrounding fire.

Unsuitable Extinguishing Media

Do not use high-pressure water streams. Avoid using a direct stream of water. Directly spraying water or foam onto hot burning product may cause frothing.

Special Hazards Arising from the Chemical

Negligible fire hazard. Heated material may cause thermal burns.

Hazardous Combustion Products

Burning may produce oxides of carbon, oxides of nitrogen, oxides of potassium.

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.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment. If product is spilled onto floor, clean area to prevent slipping.

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.

Conditions for Safe Storage, Including any Incompatibilities

Do not store below 40°F (4.4°C). Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from naked flame. Empty product containers may retain product residue and can be dangerous.

Incompatible Materials

Strong acids, strong oxidizers, strong bases.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Cyclohexylamine	108-91-8
Alberta; New Brunswick	10 ppm TWA ; 41 mg/m ³ TWA
British Columbia; Manitoba; Nova Scotia; Ontario; Prince Edward Island	10 ppm TWA
Northwest Territories; Nunavut; Saskatchewan	10 ppm TWA; 15 ppm STEL
Quebec	10 ppm TWAEV ; 41 mg/m ³ TWAEV
Yukon	10 ppm TWA ; 40 mg/m ³ TWA; 10 ppm STEL ; 40 mg/m ³ STEL; Skin notation
ACGIH:	10 ppm TWA

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 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, and lab coat or apron.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, yellow liquid	Physical State	Liquid
Odor	Mild	Color	Clear yellow.
Odor Threshold	Not available	pH	9.4
Melting Point	0 °C (32°F)	Boiling Point	100 °C (212°F)
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	17.5 mmHg @20°C
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	1
Water Solubility	(complete)	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	Not available	Physical Form	Liquid.
Molecular Weight	Not available		
Volatile Organic Compounds (As regulated)	0.294 WT%; 0.0262 LB/US gal; 3.14 g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 17.5 mmHg VOC Content is less than 25 grams/liter: This solution is explicitly listed as either an “exempted” or a “Clean Air Solvent” by the South Coast Air Quality Management District (SCAQMD) because it does not contain reactive volatile organic compounds (VOCs) that can react with sunlight and nitrogen-dioxides to create ground-based ozone (smog). Consult with your state/local air pollution control agency and their rules/regulations for specific direction in your specific area. www.aqmd.gov		

Section 10 - STABILITY AND REACTIVITY
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Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

Avoid naked flame and direct sunlight.

Incompatible Materials

Strong acids, strong oxidizers, strong reducers.

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Hazardous decomposition products

Thermal decomposition products

Oxides of carbon, potassium and nitrogen.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs).

Skin Contact

May cause skin irritation. Contact with heated product may cause serious thermal burns.

Eye Contact

May cause eye irritation.

Ingestion

Large amounts may cause gastrointestinal disturbances.

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:

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg;

2-Propanol, 1-(2-butoxy-1-methylethoxy)- (29911-28-2)

Oral LD50 Rat 1620 µL/kg; Inhalation LC50 Rat 42.1 ppm 4 h

Carbonic acid, dipotassium salt (584-08-7)

Oral LD50 Rat 1870 mg/kg

Cyclohexylamine (108-91-8)

Oral LD50 Rat 11 mg/kg; Dermal LD50 Rabbit 277 mg/kg; Inhalation LC50 Rat 1000 ppm 16 h

Product Toxicity Data

Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Inhalation - Vapor	> 20 mg/L
Oral	> 2000 mg/kg

Immediate Effects

May cause skin irritation. May cause eye irritation. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs).

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

May cause skin irritation. May cause eye irritation. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). Contact with heated material may cause serious thermal burns.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

Cyclohexylamine	108-91-8
ACGIH:	A4 - Not Classifiable as a Human Carcinogen

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IARC:	Supplement 7 [1987] (Group 3 (not classifiable))
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Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No data available

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

No information on significant adverse effects.

Specific Target Organ Toxicity - Repeated Exposure

No information on significant adverse effects.

Aspiration hazard

No information available for the product.

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

2-Propanol, 1-(2-butoxy-1-methylethoxy)-	29911-28-2
Fish:	LC50 96 h Poecilia reticulata 841 mg/L [static]
Carbonic acid, dipotassium salt	584-08-7
Invertebrate:	LC50 48 h Ceriodaphnia dubia 630 mg/L EPA
Cyclohexylamine	108-91-8
Fish:	LC50 96 h Oncorhynchus mykiss 44 - 90 mg/L; LC50 96 h Brachydanio rerio 470 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata 20 mg/L [static] EPA ; EC50 96 h Pseudokirchneriella subcapitata 20 mg/L IUCLID

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information is available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

The U.S. EPA has not published waste numbers for this product's components. Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The

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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: Not regulated for transport.

IATA Information: Not regulated for transport.

TDG Information: Not regulated for transport.

International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Cyclohexylamine	108-91-8
IBC Code:	Category Y

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.

Cyclohexylamine	108-91-8
SARA 302:	10000 lb TPQ
SARA 304:	10000 lb EPCRA RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C) 2016 reporting categories

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

U.S. State Regulations

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Not listed under California Proposition 65.

Component Analysis - Inventory

Water (7732-18-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	No	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

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Monopotassium carbonate (298-14-6)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

2-Propanol, 1-(2-butoxy-1-methylethoxy)- (29911-28-2)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Carbonic acid, dipotassium salt (584-08-7)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Cyclohexylamine (108-91-8)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes			Yes	Yes	Yes	Yes	Yes	Yes

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: 0 Fire: 0 Reactivity: 0

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

Summary of Changes

Update to chemical emergency phone number, supplier address, and VOC 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

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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).

Other Information

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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 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.