

Safety Data Sheet

Material Name: ArmaKleen M-100BCR Concentrate

SDS ID: 820250

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

ArmaKleen M-100BCR Concentrate

Product Code

Formula Code 42010317

Synonyms

Not available.

Product Use

Aqueous, alkaline, concentrated cleaner that is to be diluted with water and used for cleaning aluminum, magnesium, titanium, ferrous and non-ferrous alloys as well as plastic, glass, and composite materials. Concentrated cleaner must be diluted prior to use to meet local, state, and provincial VOC emission regulations. If this product is used in combination with other products, refer to the Safety Data Sheets 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 L7A 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

April 3, 2017

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

Skin Sensitization - Category 1A

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GHS Label Elements

Symbol(s)



Signal Word

Warning

Hazard Statement(s)

May cause an allergic skin reaction.

Precautionary Statement(s)

Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Wear protective gloves.

Response

If exposed or concerned: Call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Immediately call a POISON CENTER or doctor/physician.

Storage

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

Prolonged or repeated contact may cause defatting and dermatitis. Contact with diluted heated material may cause serious thermal burns.

Statement(s) of Unknown Acute Toxicity

Oral 86.1% of the mixture consists of ingredient(s) of unknown acute toxicity.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Water	55-61
6132-04-3	Trisodium citrate dihydrate	7.7-8.5
1984-06-1	Sodium caprylate	5.5-6.1
1356964-77-6	9-Decenamide, N,N-dimethyl-	4.5-5.5
31138-65-5	D-gluco-Heptonic acid, monosodium salt, (2.xi.)-	3.8-4.2
112-24-3	Triethylenetetramine	3.8-4.2

Section 4 - FIRST AID MEASURES

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Inhalation

IF INHALED: If adverse effects occur, remove to uncontaminated area. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician. For thermal burns caused by diluted heated product, remove affected 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/physician.

Ingestion

IF SWALLOWED: Do NOT induce vomiting. Immediately get medical attention.

Most Important Symptoms/Effects

Acute

Allergic skin reaction. Contact with diluted heated product can cause severe burns to the eyes and skin and can result in permanent eye damage.

Delayed

No information on significant adverse effects.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, regular foam, dry chemical, water spray, water fog. Water or foam may cause frothing.

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.

Advice for firefighters

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

Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce oxides of carbon, oxides of sodium.

Fire Fighting Measures

Move undamaged containers 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.

Methods and Materials for Containment and Cleaning Up

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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.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from naked flames. Do not breathe vapor or dusts. Contaminated work clothing should not be allowed out of the workplace. Wear 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 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

Acids, oxidizing agents, reducing agents.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

There are no constituents of the product which have a PEL, TLV or other recommended exposure limit.

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. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls.

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

Wear appropriate chemical resistant gloves. 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.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, yellow liquid	Physical State	Liquid
Odor	Sweet ,soapy odor	Color	Pale
Odor Threshold	Not available	pH	10.5
Melting Point	Not available	Boiling Point	212°F (100 °C)
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	16.66 mmHg @ 20°C
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	1.08
Water Solubility	Complete.	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	Not available
Volatile Organic Compounds (As Regulated)	9 WT%; 0.751 lb/US gal; 90 g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @ 20°C = 16.66 mmHg This product, when diluted, 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

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 flames and direct sunlight.

Incompatible Materials

Acids, oxidizing agents, reducing agents.

Hazardous decomposition products

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

Section 11 - TOXICOLOGICAL INFORMATION

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Information on Likely Routes of Exposure

Inhalation

May be harmful if inhaled. May cause respiratory irritation.

Skin Contact

Causes allergic skin reaction. May cause irritation. Contact with diluted heated product may cause serious thermal burns.

Eye Contact

May cause irritation.

Ingestion

May be harmful if swallowed.

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:

9-Decenamamide, N,N-dimethyl- (1356964-77-6)

Oral LD50 Rat 550 mg/kg

D-gluco-Heptonic acid, monosodium salt, (2.xi.)- (31138-65-5)

Oral LD50 Rat >4040 mg/kg (no deaths occurred)

Triethylenetetramine (112-24-3)

Oral LD50 Rat 2500 mg/kg; Dermal LD50 Rabbit 550 mg/kg

Product Toxicity Data

Acute Toxicity Estimate

Oral	1092.8013 mg/kg
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Immediate Effects

Causes allergic skin reaction.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

May cause irritation. Contact with diluted heated material may cause burns

Respiratory Sensitization

No information on significant adverse effects.

Dermal Sensitization

May cause an allergic skin reaction.

Component Carcinogenicity

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

Germ Cell Mutagenicity

No information on significant adverse effects.

Tumorigenic Data

No data available

Reproductive Toxicity

No information on significant adverse effects.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

No significant target effects reported.

Medical Conditions Aggravated by Exposure

No data available.

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Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

9-Decenamide, N,N-dimethyl-	1356964-77-6
Fish:	LC50 96 h Pimephales promelas >7.5 mg/L [flow-through]
Triethylenetetramine	112-24-3
Fish:	LC50 96 h Poecilia reticulata 570 mg/L [semi-static]; LC50 96 h Pimephales promelas 495 mg/L
Algae:	EC50 72 h Desmodesmus subspicatus 2.5 mg/L IUCLID ; EC50 72 h Pseudokirchneriella subcapitata 20 mg/L IUCLID ; EC50 96 h Pseudokirchneriella subcapitata 3.7 mg/L EPA
Invertebrate:	EC50 48 h Daphnia magna 31.1 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.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

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: Not regulated for transport.

IATA Information: Not regulated for transport.

IMDG 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.

Triethylenetetramine	112-24-3
IBC Code:	Category Y

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Section 15 - REGULATORY INFORMATION

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.

D-gluco-Heptonic acid, monosodium salt, (2.xi.)-	31138-65-5
TSCA 12b:	Section 4 , 1 % de minimis concentration

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

Acute toxicity; Respiratory/Skin Sensitization

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Triethylenetetramine	112-24-3	No	Yes	No	Yes	Yes

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

Not listed under California Proposition 65.

Canada Regulations

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Triethylenetetramine	112-24-3
	0.1 %

Component Analysis - Inventory

Trisodium citrate dihydrate (6132-04-3)

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

Sodium caprylate (1984-06-1)

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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			No	Yes	Yes	No	Yes	Yes

9-Decenamide, N,N-dimethyl- (1356964-77-6)

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

D-gluco-Heptonic acid, monosodium salt, (2.xi.)- (31138-65-5)

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			No	Yes	Yes	Yes	Yes	Yes

Triethylenetetramine (112-24-3)

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

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

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Health: 2 Fire: 0 Instability: 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; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; 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; MX - Mexico; Ne - Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

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.