



Safety Data Sheet

Material Name: ArmaKleen 4 in 1 Cleaner Concentrate

SDS ID: 820071

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

ArmaKleen 4 in 1 Cleaner Concentrate

Product Code

6365, 6466, 6366

Formula Code 42000146

Synonyms

Not available.

Product Use Recommended 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 and state VOC emission 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

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

SUPPLIER

Safety-Kleen Systems, Inc.
2600 North Central Expressway
Suite 200
Richardson, TX 75080
Phone: 1-800-669-5740
www.safety-kleen.com

IMPORTER/DISTRIBUTOR

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: 1-800-424-9300 (CHEMTREC)

Issue Date

March 6, 2017

Supersedes Issue Date

April 27, 2015

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October 22, 2009

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

Acute Toxicity - Oral - Category 4

Skin Corrosion/Irritation - Category 1A

Serious Eye Damage/Eye Irritation - Category 1

Skin Sensitization - Category 1A

Specific Target Organ Toxicity - Repeated Exposure - Category 2

Health Hazard Not Otherwise Classified - Category 1.

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GHS Label Elements

Symbol(s)



Signal Word

Danger.

Hazard Statement(s)

Causes severe skin burns and eye damage.

May cause allergic skin reaction.

May cause damage to organs through prolonged or repeated exposure.

Causes severe damage to the respiratory tract.

Precautionary Statement(s)

Prevention

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

Response

If exposed: Call a POISON CENTER or doctor/physician. 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. If skin irritation or rash occurs: Get medical advice/attention. 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 locked up.

Disposal

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

Statement of Unknown Toxicity

69% of the mixture consists of ingredient(s) of unknown acute toxicity.

Other hazards

Repeated exposure may cause skin dryness or cracking.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Water	53-60
124-07-2	Octanoic acid	5.0 -5.5
68439-46-3	Alcohols, C9-11, ethoxylated	3.8-4.2
68987-81-5	Alcohols, C6-10, ethoxylated propoxylated	2.9-3.2
61791-26-2	Amines, tallow alkyl, ethoxylated	2.9-3.2

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1310-73-2	Sodium hydroxide	2.5-2.7
68154-99-4	Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether	1.4-1.6
497-19-8	Disodium carbonate	1.9-2.1
110-15-6	Succinic acid	1.6-1.8
23783-26-8	Acetic acid, hydroxyphosphono-	2.9-3.2

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. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

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. Do not induce vomiting.

Most Important Symptoms/Effects

Acute

Harmful if swallowed. Causes skin burns, eye burns, allergic skin reaction. Causes severe damage to the respiratory tract.

Delayed

Repeated exposure may cause skin dryness or cracking. May cause damage to organs through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

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.

Special Hazards Arising from the Chemical

Negligible fire hazard.

Hazardous Combustion Products

Burning may produce Carbon monoxide, Nitrogen oxide.

Advice for firefighters

Containers may rupture or explode if exposed to heat.

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Fire Fighting Measures

Move container from fire area if it can be done without risk. Keep storage containers cool with water spray. Heated containers may rupture. "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

Remove all ignition sources. 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 as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, spark proof tool into a sealable container for disposal. Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

Environmental Precautions

Prevent material from entering drains or sewers.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from sparks or 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

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 heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

Incompatible Materials

Strong acids, reducing agents, oxidizers.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Sodium hydroxide	1310-73-2
Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Quebec, Saskatchewan	2 mg/m3 Ceiling
ACGIH:	2 mg/m3 Ceiling

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

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

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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.

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, Lab coat or apron.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Amber clear liquid	Physical State	Liquid
Odor	Mild	Color	Clear, amber
Odor Threshold	Not available	pH	11.9 (aqueous solution)
Melting Point	0 °C	Boiling Point	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	>100 °C
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	1.055
Water Solubility	(complete)	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Solubility (Other)	Not available
Density	Not available	Molecular Weight	Not available

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	2.5% Solution	0.51 WT%; 0.044 LB/US gal; 5.25 g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 17.5 mmHg Product does not contain photochemically reactive solvents
	5.0% Solution	1.02 WT%; 0.088 LB/US gal; 10.5 g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 17.5 mmHg VOC Vapor Pressure @38°C = 0.644 mmHg Product does not contain photochemically reactive solvents
Volatile Organic Compounds (As regulated)	10% Solution	2.04 WT%; 0.175 LB/US gal; 21g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 17.5 mmHg VOC Vapor Pressure @38°C = 0.734 mmHg Product does not contain photochemically reactive solvents
	100% Concentrate	21.1 WT%; 1.76 LB/US gal; 210.92 g/L; As per 40 CFR Part 51.100(s) Product Vapor Pressure @20°C = 17.5 mmHg Product does not contain photochemically reactive solvents

Section 10 - STABILITY AND REACTIVITY

Reactivity

May react on contact with strong acids.

Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

Conditions to Avoid

Avoid sparks or flame.

Incompatible Materials

Strong acids, reducing agents, oxidizers.

Hazardous decomposition products

Oxides of carbon, nitrogen oxides. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

Thermal decomposition products

Carbon monoxide, nitrogen oxides (NO_x).

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

Causes severe damage to the respiratory tract.

Skin Contact

Causes burns. May cause allergic skin reaction.

Eye Contact

Causes eye burns.

Ingestion

Harmful if swallowed. May cause irritation.

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:

Octanoic acid (124-07-2)

Dermal LD50 Rabbit >5 g/kg

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

Oral LD50 Rat 1400 mg/kg

Amines, tallow alkyl, ethoxylated (61791-26-2)

Oral LD50 Rat 500 mg/kg

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Sodium hydroxide (1310-73-2)

Dermal LD50 Rabbit 1350 mg/kg

Disodium carbonate (497-19-8)

Oral LD50 Rat 4090 mg/kg; Dermal LD50 Mouse 2210 mg/kg; Inhalation LC50 Rat 2300 mg/m³ 2 h

Succinic acid (110-15-6)

Oral LD50 Rat 2260 mg/kg

Product Toxicity Data

Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Oral	871.4859 mg/kg

Immediate Effects

Harmful if swallowed. Causes burns, eye burns, skin burns. May cause allergic skin reaction. Causes severe damage to the respiratory tract.

Delayed Effects

Repeated exposure may cause skin dryness or cracking. May cause damage to organs through prolonged or repeated exposure.

Irritation/Corrosivity Data

Causes burns. Causes severe damage to the respiratory tract.

Respiratory Sensitization

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

Dermal Sensitization

May cause allergic skin reaction.

Component Carcinogenicity

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

May cause damage to organs through prolonged or repeated exposure.

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

Octanoic acid	124-07-2
Fish:	LC50 96 h Oryzias latipes 310 mg/L [semi-static]; LC50 96 h Brachydanio rerio 110 mg/L [semi-static]

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Sodium hydroxide	1310-73-2
Fish:	LC50 96 h Oncorhynchus mykiss 45.4 mg/L [static]
Disodium carbonate	497-19-8
Fish:	LC50 96 h Lepomis macrochirus 300 mg/L [static]; LC50 96 h Pimephales promelas 310 - 1220 mg/L [static]
Invertebrate:	EC50 48 h Daphnia magna 265 mg/L IUCLID

Invertebrate Toxicity

No additional information is available.

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.

TDG Information: Not regulated for transport.

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.

Sodium hydroxide	1310-73-2
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CERCLA:	1000 lb final RQ ; 454 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

Octanoic acid (124-07-2), Sodium hydroxide (1310-73-2), Succinic acid (110-15-6)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

Alcohols, C9-11, ethoxylated (68439-46-3), Alcohols, C6-10, ethoxylated propoxylated (68987-81-5), Amines, tallow alkyl, ethoxylated (61791-26-2), Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether (68154-99-4)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	No	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes

Disodium carbonate (497-19-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

Acetic acid, hydroxyphosphono- (23783-26-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	ELN	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 1 Fire: 0 Reactivity: 0

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

Summary of Changes

Revision to comply with WHMIS 2015.

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 -

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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

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 Product Regulations (HPR)

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.