

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture
Product Name: ARMAKLEEN™ 4 in 1 NF Concentrate
Product Code: 6365, 6466, 6366
Formula Code: Not available.
Synonyms: Not available.
SDS No: 820483

Intended Use of the Product

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 (5% solution) 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.

1.3. Name, Address, and Telephone of the Responsible Party

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
 U.S.A.
 Phone: 1-800-669-5740
www.safety-kleen.com

SUPPLIER (in Canada)

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

Emergency Telephone Number

Emergency Number : For Medical Emergency: 1-888-234-1828 (USA and Canada)
 For Chemical Emergency: VelocityEHS (800)255-3924 (North America) +1 (813)248-0585 (International)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS-US/CA Classification

| | |
|--|------|
| Skin corrosion/irritation Category 2 | H315 |
| Serious eye damage/eye irritation Category 1 | H318 |
| Skin sensitization, Category 1 | H317 |
| Reproductive toxicity Category 2 | H361 |

Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)



Signal Word (GHS-US/CA)

: Danger

Hazard Statements (GHS-US/CA)

: H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H318 - Causes serious eye damage.
 H361 - Suspected of damaging fertility or the unborn child.

Precautionary Statements (GHS-US/CA)

: P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P261 - Avoid breathing vapors, mist, or spray.
 P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves, protective clothing, and eye protection.

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P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P321 - Specific treatment (see section 4 on this SDS).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

| Name | Synonyms | Product Identifier | % * | GHS Ingredient Classification |
|---|---|----------------------|-----------|--|
| Water | water / AQUA | (CAS-No.) 7732-18-5 | 60 - 80 | Not classified |
| Sodium n-octanoate | Sodium caprylate / Caprylic acid sodium salt / Octanoate, sodium / Octanoic acid, sodium salt / Sodium octanoate | (CAS-No.) 1984-06-1 | 5 - 10 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 |
| Sodium silicate | Sodium silicates / SODIUM SILICATE / Silicic acid, sodium salt | (CAS-No.) 1344-09-8 | 1 - 5 | Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 |
| Oxirane, methyl-, polymer with oxirane, mono(2-ethylhexyl) ether | Oxirane, methyl-, polymer with oxirane, monoether with 2-ethylhexanol / Oxirane, 2-methyl-, polymer with oxirane, mono(2-ethylhexyl) ether / PPG-9-Ethylhexeth-5 / 2-Ethylhexan-1-ol, ethoxylated propoxylated / PEG-3 PPG-7 ETHYLHEXYL ETHER | (CAS-No.) 64366-70-7 | 1 - 5 | Eye Irrit. 2A, H319 |
| Alcohols, C6-10, ethoxylated propoxylated | Ethoxylated propoxylated C6-10 alcohols / Poly(ethylene propylene)glycol ethers of C6-10 alcohols / Ethoxylated propoxylated alcohols(C6-10) / Alcohols, C8-10, ethoxylated propoxylated | (CAS-No.) 68987-81-5 | 1 - 5 | Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 |
| Disodium carbonate | Sodium carbonate / Carbonic acid, disodium salt / Soda ash / Sodium carbonate (2:1) / Sodium carbonate, anhydrous | (CAS-No.) 497-19-8 | 1 - 5 | Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319 |
| Alcohols, C6-12, ethoxylated | C6-12 ethoxylated alcohols / Ethoxylated alcohols(C6-12) | (CAS-No.) 68439-45-2 | 1 - 5 | Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 |
| Alcohols, C12-14, ethoxylated propoxylated | Alcohols, C12-14, ethoxylated, propoxylated / PPG-5-Laureth-5 / PPG-5-LAURETH-5 / PPG-2-laureth-12 / PPG-2-laureth-5 | (CAS-No.) 68439-51-0 | 1 - 5 | Skin Irrit. 2, H315 Eye Dam. 1, H318 |
| Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether | Alcohols, C8-10, ethers with polyethylene polypropylene glycol, monobenzyl ether | (CAS-No.) 68154-99-4 | 0.5 – 1.5 | Skin Irrit. 2, H315 Eye Dam. 1, H318 |

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| | | | | |
|--------------------------------|--|----------------------|---------|---|
| Tolyl triazole | 1H-Benzotriazole, 4(or 5)-methyl- / 1H-Benzotriazole, methyl- / Methyl-1H-benzotriazole / Tolyltriazole / 1H-Benzotriazole, 4 (or 5)-methyl- | (CAS-No.) 29385-43-1 | 0.1 - 1 | Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2B, H320 Repr. 2, H361 |
| Cyclohexylamine | Aminocyclohexane / Cyclohexanamine / Hexahydroaniline / Hexahydrobenzenamine / Cyclohexan-1-ylamine | (CAS-No.) 108-91-8 | 0.1 - 1 | Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1, H314 Eye Dam. 1, H318 Repr. 2, H361 |
| Acetic acid, hydroxyphosphono- | 2-Hydroxyphosphonoacetic acid / Acetic acid, 2-hydroxy-2-phosphono- / DP-3337 / Phosphonoacetic acid / Hydroxyphosphonoacetic acid | (CAS-No.) 23783-26-8 | 0.1 | Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373 |

Full text of H-statements: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%). The actual concentration of ingredient(s) is withheld as a trade secret in accordance with the Hazardous Products Regulations (HPR) SOR/2015-17 and 29 CFR 1910.1200.

SECTION 4: FIRST AID MEASURES

Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). First aid personnel should wear appropriate protective equipment during any rescue.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Wash affected area with soap and water for at least 15 minutes. Obtain medical attention if irritation/rash develops or persists.

Eye Contact: Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye damage. Causes skin irritation. Suspected of damaging fertility. Suspected of damaging the unborn child. Skin sensitization.

Inhalation: Prolonged exposure may cause irritation.

Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: Suspected of damaging fertility. Suspected of damaging the unborn child.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions are not expected to occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

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Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Sodium oxides. Hydrogen cyanide.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up

For Containment: As an immediate precautionary measure, isolate spill or leak area in all directions. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Spilled product is slippery. Do not walk through spilled product. Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Precautions for Safe Handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist, and spray. Handle empty containers with care because they may still present a hazard. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in original container or corrosive resistant and/or lined container. Do not store below 40°F (4.4°C).

Incompatible Materials: Strong acids, strong bases, strong oxidizers. Halogens.

Specific End Use(s)

Industrial Bio Based Cleaner. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

| Cyclohexylamine (108-91-8) | | |
|----------------------------|-------------------------|--|
| USA ACGIH | ACGIH OEL TWA [ppm] | 10 ppm |
| USA ACGIH | ACGIH chemical category | Not Classifiable as a Human Carcinogen |
| USA NIOSH | NIOSH REL (TWA) | 40 mg/m ³ |
| USA NIOSH | NIOSH REL TWA [ppm] | 10 ppm |
| Alberta | OEL TWA | 41 mg/m ³ |
| Alberta | OEL TWA [ppm] | 10 ppm |

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| | | |
|-------------------------|----------------------|----------------------|
| British Columbia | OEL TWA [ppm] | 10 ppm |
| Manitoba | OEL TWA [ppm] | 10 ppm |
| New Brunswick | OEL TWA | 41 mg/m ³ |
| New Brunswick | OEL TWA [ppm] | 10 ppm |
| Newfoundland & Labrador | OEL TWA [ppm] | 10 ppm |
| Nova Scotia | OEL TWA [ppm] | 10 ppm |
| Nunavut | OEL STEL [ppm] | 15 ppm |
| Nunavut | OEL TWA [ppm] | 10 ppm |
| Northwest Territories | OEL STEL [ppm] | 15 ppm |
| Northwest Territories | OEL TWA [ppm] | 10 ppm |
| Ontario | OEL TWA [ppm] | 10 ppm |
| Prince Edward Island | OEL TWA [ppm] | 10 ppm |
| Québec | VEMP (OEL TWA) | 41 mg/m ³ |
| Québec | VEMP (OEL TWA) [ppm] | 10 ppm |
| Saskatchewan | OEL STEL [ppm] | 15 ppm |
| Saskatchewan | OEL TWA [ppm] | 10 ppm |
| Yukon | OEL STEL | 40 mg/m ³ |
| Yukon | OEL STEL [ppm] | 10 ppm |
| Yukon | OEL TWA | 40 mg/m ³ |
| Yukon | OEL TWA [ppm] | 10 ppm |

Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Safety glasses with side-shields. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection. Face shield.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Safety glasses with side-shields. Wear face shield where splash hazard exists.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

| | |
|---------------------------|---------------------|
| Physical State | : Liquid |
| Appearance | : Pale yellow |
| Odor | : Mild |
| Odor Threshold | : No data available |
| pH | : 12.2 |
| Evaporation Rate | : Similar to water |
| Melting Point | : No data available |
| Freezing Point | : No data available |
| Boiling Point | : 212 °F (100 °C) |
| Flash Point | : No data available |
| Auto-ignition Temperature | : No data available |
| Decomposition Temperature | : No data available |

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| | |
|---|---|
| Flammability | : Not applicable |
| Lower Flammable Limit | : No data available |
| Upper Flammable Limit | : No data available |
| Vapor Pressure | : < 1 mm Hg at 20 °C (excludes water portion) |
| Relative Vapor Density at 20°C | : No data available |
| Relative Density | : No data available |
| Density | : 1.043 g/ml |
| Specific Gravity | : 1.043 |
| Solubility | : Water: Complete |
| Partition Coefficient: N-Octanol/Water | : No data available |
| Viscosity | : Similar to Water |
| VOC content | : 46 g/l; 5% Solution 2.3 g/l (EPA Method 24) |

SECTION 10: STABILITY AND REACTIVITY

Reactivity:

Hazardous reactions are not expected to occur under normal conditions.

Chemical Stability:

Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, and incompatible materials.

Incompatible Materials:

Strong acids, strong bases, strong oxidizers. Halogens.

Hazardous Decomposition Products:

Thermal decomposition may produce: Carbon oxides (CO, CO₂). Nitrogen oxides. Sodium oxides. Hydrogen cyanide.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:

No additional information available

Skin Corrosion/Irritation: Causes skin irritation. Mixture-level Corrositex® data shows that this product is not corrosive to the skin.

pH: 12.2

Eye Damage/Irritation: Causes serious eye damage.

pH: 12.2

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Suspected of damaging fertility. Suspected of damaging the unborn child.

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: Suspected of damaging fertility. Suspected of damaging the unborn child.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Tolyl triazole (29385-43-1)

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| | |
|--|--|
| LD50 Oral Rat | 675 mg/kg |
| LD50 Dermal Rabbit | > 4000 mg/kg |
| LC50 Inhalation Rat | > 1.73 mg/l (Exposure time: 1 h) |
| Alcohols, C6-12, ethoxylated (68439-45-2) | |
| ATE US/CA (oral) | 500.00 mg/kg body weight |
| Cyclohexylamine (108-91-8) | |
| LD50 Oral Rat | 11 mg/kg |
| LD50 Dermal Rabbit | 277 mg/kg |
| LC50 Inhalation Rat | 1000 ppm (Exposure time: 16 h) |
| Alcohols, C12-14, ethoxylated propoxylated (68439-51-0) | |
| LD50 Oral Rat | 3530 mg/kg |
| Disodium carbonate (497-19-8) | |
| LD50 Oral Rat | 4090 mg/kg |
| LD50 Dermal Rabbit | > 2000 mg/kg |
| LC50 Inhalation Rat | 2300 mg/m ³ (Exposure time: 2 h) |
| Sodium silicate (1344-09-8) | |
| LD50 Oral Rat | 1960 mg/kg |
| Alcohols, C6-10, ethoxylated propoxylated (68987-81-5) | |
| LD50 Oral Rat | 810 – 1660 mg/kg (Read-across from 68603-25-8) |
| Acetic acid, hydroxyphosphono- (23783-26-8) | |
| ATE US/CA (oral) | 500.00 mg/kg body weight |
| Cyclohexylamine (108-91-8) | |
| IARC Group | 3 |

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Harmful to aquatic life with long lasting effects.

| | |
|--------------------------------------|---|
| Tolyl triazole (29385-43-1) | |
| LC50 Fish 1 | 180 mg/l |
| LC50 Other Aquatic Organisms 1 | 55 mg/l |
| NOEC Chronic Crustacea | 10 mg/l |
| NOEC Chronic Algae | 1.18 mg/l |
| Cyclohexylamine (108-91-8) | |
| LC50 Fish 1 | 44 – 90 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss) |
| LC50 Fish 2 | 470 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static]) |
| Disodium carbonate (497-19-8) | |
| LC50 Fish 1 | 300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) |
| EC50 - Crustacea [1] | 265 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| LC50 Fish 2 | 310 – 1220 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |
| Sodium silicate (1344-09-8) | |
| LC50 Fish 1 | 301 – 478 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus) |
| LC50 Fish 2 | 3185 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static]) |

Persistence and Degradability

| | |
|--|---|
| ARMAKLEEN™ 4 in 1 -NF Concentrate | |
| Persistence and Degradability | May cause long-term adverse effects in the environment. |

Bioaccumulative Potential

| | |
|--|------------------|
| ARMAKLEEN™ 4 in 1 -NF Concentrate | |
| Bioaccumulative Potential | Not established. |
| Tolyl triazole (29385-43-1) | |

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| | |
|--|--|
| Partition coefficient n-octanol/water (Log Pow) | 1.079 - <=1.083 - at 25 °C (at pH 7-<=8) |
| Cyclohexylamine (108-91-8) | |
| Partition coefficient n-octanol/water (Log Pow) | 3.7 at 25 °C (at pH 6.8) |
| Disodium carbonate (497-19-8) | |
| BCF Fish 1 | (no bioaccumulation) |
| Sodium silicate (1344-09-8) | |
| BCF Fish 1 | (no bioaccumulation expected) |

Mobility in Soil

No additional information available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In Accordance with DOT

Not regulated for transport

In Accordance with IMDG

Not regulated for transport

In Accordance with IATA

Not regulated for transport

In Accordance with TDG

Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

| | |
|--|--|
| ARMAKLEEN™ 4 in 1 -NF Concentrate | |
| SARA Section 311/312 Hazard Classes | Health hazard - Reproductive toxicity Health hazard - Respiratory or skin sensitization Health hazard - Serious eye damage or eye irritation Health hazard - Skin corrosion or Irritation |
| Water (7732-18-5) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| Tolyl triazole (29385-43-1) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| EPA TSCA Regulatory Flag | TP - TP - indicates a substance that is the subject of a proposed Section 4 test rule under TSCA. |
| Sodium n-octanoate (1984-06-1) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| Alcohols, C6-12, ethoxylated (68439-45-2) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| EPA TSCA Regulatory Flag | XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |
| Cyclohexylamine (108-91-8) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on the United States SARA Section 302 | |

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| | |
|---|---|
| SARA Section 302 Threshold Planning Quantity (TPQ) | 10000 lb |
| Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether (68154-99-4) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| EPA TSCA Regulatory Flag | XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |
| Oxirane, methyl-, polymer with oxirane, mono(2-ethylhexyl) ether (64366-70-7) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| EPA TSCA Regulatory Flag | PMN - PMN - indicates a commenced PMN substance. XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |
| Alcohols, C12-14, ethoxylated propoxylated (68439-51-0) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| EPA TSCA Regulatory Flag | XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |
| Disodium carbonate (497-19-8) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| Sodium silicate (1344-09-8) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| Alcohols, C6-10, ethoxylated propoxylated (68987-81-5) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| EPA TSCA Regulatory Flag | XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711). |
| Acetic acid, hydroxyphosphono- (23783-26-8) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| EPA TSCA Regulatory Flag | PMN - PMN - indicates a commenced PMN substance. |

US State Regulations

| |
|---|
| Cyclohexylamine (108-91-8) |
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) List |
| U.S. - Massachusetts - Right To Know List |
| U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List |

Canadian Regulations

| |
|---|
| Water (7732-18-5) |
| Listed on the Canadian DSL (Domestic Substances List) |
| Tolyl triazole (29385-43-1) |
| Listed on the Canadian DSL (Domestic Substances List) |
| Sodium n-octanoate (1984-06-1) |
| Listed on the Canadian DSL (Domestic Substances List) |
| Alcohols, C6-12, ethoxylated (68439-45-2) |
| Listed on the Canadian DSL (Domestic Substances List) |
| Cyclohexylamine (108-91-8) |
| Listed on the Canadian DSL (Domestic Substances List) |
| Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether (68154-99-4) |
| Listed on the Canadian DSL (Domestic Substances List) |
| Oxirane, methyl-, polymer with oxirane, mono(2-ethylhexyl) ether (64366-70-7) |
| Listed on the Canadian DSL (Domestic Substances List) |
| Alcohols, C12-14, ethoxylated propoxylated (68439-51-0) |
| Listed on the Canadian DSL (Domestic Substances List) |

ARMAKLEEN™ 4 in 1 NF Concentrate

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Disodium carbonate (497-19-8)

Listed on the Canadian DSL (Domestic Substances List)

Sodium silicate (1344-09-8)

Listed on the Canadian DSL (Domestic Substances List)

Alcohols, C6-10, ethoxylated propoxylated (68987-81-5)

Listed on the Canadian NDSL (Non-Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 01/21/2025

Revision

Indication of Changes : Update to logo and Manufacturer 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) SOR/2015-17.

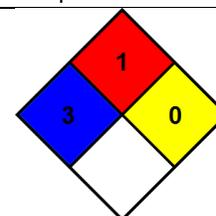
GHS Full Text Phrases:

| | |
|------|---|
| H226 | Flammable liquid and vapor |
| H290 | May be corrosive to metals |
| H302 | Harmful if swallowed |
| H311 | Toxic in contact with skin |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H320 | Causes eye irritation |
| H332 | Harmful if inhaled |
| H361 | Suspected of damaging fertility or the unborn child |
| H373 | May cause damage to organs through prolonged or repeated exposure |

NFPA Health Hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA Fire Hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA Reactivity Hazard : 0 - Material that in themselves are normally stable, even under fire conditions.



The information contained herein is correct to the best of our knowledge, information, and belief and is designed only as guidance for the handling, use, processing, storage, transportation, disposal, and release of the product. User assumes all risks incident to use of this product and shall determine the quality and suitability of the product for its use. Supplier offers no warranty, express or implied, whatsoever, including warranties of merchantability or fitness for a particular purpose or otherwise, and specifically disclaims any and all liability for incidental, consequential, or other damages arising out the use or misuse of the product. The information provided relates only to the specific material provided and may not be valid if used in combination with any other materials or process, unless specified herein.