SAFETY DATA SHEET

1. Identification

Material name: GREASE-A-WAY - 1 GL
Material: CGSA G001 000

Recommended use and restriction on use
Recommended use: Cleaning agent
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information
EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards
- Skin Corrosion/Irritation Category 1A
- Serious Eye Damage/Eye Irritation Category 1

Unknown toxicity - Health
- Acute toxicity, oral 2.02 %
- Acute toxicity, dermal 4.23 %
- Acute toxicity, inhalation, vapor 6.36 %
- Acute toxicity, inhalation, dust or mist 11.18 %

Label Elements

Hazard Symbol: |

Signal Word: Danger
Hazard Statement: Causes severe skin burns and eye damage.

Precautionary Statements


Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

MIXTURES

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>111-76-2</td>
<td>1 - &lt;5%</td>
</tr>
<tr>
<td>Sodium metasilicate</td>
<td>6834-92-0</td>
<td>1 - &lt;3%</td>
</tr>
<tr>
<td>4-Nonylphenol, ethoxylated</td>
<td>127087-87-0</td>
<td>1 - &lt;5%</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>0.1 - &lt;1%</td>
</tr>
</tbody>
</table>

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

Inhalation: Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.

Skin Contact: Call a physician or poison control center immediately. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Destroy or thoroughly clean contaminated shoes.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.
Ingestion: Call a physician or poison control center immediately. Rinse mouth. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.

Personal Protection for First-aid Responders: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Most important symptoms/effects, acute and delayed

Symptoms: Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Accidental release measures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.
**Methods and material for containment and cleaning up:**

Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

**Environmental Precautions:**

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

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### 7. Handling and storage

#### Handling

**Technical measures (e.g. Local and general ventilation):**

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

**Safe handling advice:**

Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not get in eyes. Wash hands thoroughly after handling. Do not get in eyes, on skin, on clothing.

**Contact avoidance measures:**

No data available.

**Hygiene measures:**

Do not get in eyes. Observe good industrial hygiene practices. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product.

#### Storage

**Safe storage conditions:**

Store locked up.

**Safe packaging materials:**

No data available.

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### 8. Exposure controls/personal protection

#### Control Parameters

**Occupational Exposure Limits**

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>TWA</td>
<td>20 ppm</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
<td>50 ppm 240 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
<td>2 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Chemical name</td>
<td>Type</td>
<td>Exposure Limit Values</td>
<td>Source</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------</td>
<td>-----------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>TWA</td>
<td>20 ppm</td>
<td>Canada, British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>TWA</td>
<td>20 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>TWA</td>
<td>20 ppm 97 mg/m3</td>
<td>Canada, Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>CEILING</td>
<td>2 mg/m3</td>
<td>Canada, British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>CEV</td>
<td>2 mg/m3</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Ethylene glycol - Vapor.</td>
<td>CEILING</td>
<td>50 ppm</td>
<td>Canada, British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Ethylene glycol - Aerosol.</td>
<td>CEILING</td>
<td>100 mg/m3</td>
<td>Canada, British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Ethylene glycol - Particulate.</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Canada, British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Ethylene glycol - Aerosol.</td>
<td>CEV</td>
<td>100 mg/m3</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Ethylene glycol - Vapor and mist</td>
<td>CEILING</td>
<td>50 ppm 127 mg/m3</td>
<td>Canada, Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>n-Butanol</td>
<td>CEILING</td>
<td>30 ppm</td>
<td>Canada, British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>15 ppm</td>
<td>Canada, British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
</tbody>
</table>
### Biological Limit Values

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (Glycol ether) (Butoxyacetic acid (BAA), with hydrolysis: Sampling time: End of shift.)</td>
<td>200 mg/g (Creatinine in urine)</td>
<td>ACGIH BEI (03 2013)</td>
</tr>
</tbody>
</table>

### Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

### Individual protection measures, such as personal protective equipment

#### General information:

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

#### Eye/face protection:

Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin Protection

##### Hand Protection:

Use suitable protective gloves if risk of skin contact.

##### Other:

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

#### Respiratory Protection:

In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

#### Hygiene measures:

Do not get in eyes. Observe good industrial hygiene practices. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product.

### 9. Physical and chemical properties

#### Appearance

- **Physical state:** liquid
- **Form:** liquid
- **Color:** Colorless
- **Odor:** Mild
- **Odor threshold:** No data available.
- **pH:** 13 - 14
Melting point/freezing point: No data available.
Initial boiling point and boiling range: 239 °C 462 °F
Flash Point: No data available.
Evaporation rate: Slower than Ether
Flammability (solid, gas): No
Upper/lower limit on flammability or explosive limits
  Flammability limit - upper (%): No data available.
  Flammability limit - lower (%): No data available.
  Explosive limit - upper (%): No data available.
  Explosive limit - lower (%): No data available.
Vapor pressure: No data available.
Vapor density: Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density: 1.0084
Solubility(ies)
  Solubility in water: Soluble
  Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.

10. Stability and reactivity
Reactivity: No data available.
Chemical Stability: Material is stable under normal conditions.
Possibility of hazardous reactions: No data available.
Conditions to avoid: Avoid heat or contamination.
Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information
Information on likely routes of exposure
  Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
  Skin Contact: Causes severe skin burns.
  Eye contact: Causes serious eye damage.
  Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.
Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No data available.
Skin Contact: No data available.
Eye contact: No data available.
Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

<table>
<thead>
<tr>
<th>Route</th>
<th>Product:</th>
<th>ATEmix: mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>ATEmix:</td>
<td>15,926.6</td>
</tr>
<tr>
<td>Dermal</td>
<td>ATEmix:</td>
<td>21,862.43</td>
</tr>
<tr>
<td>Inhalation</td>
<td>ATEmix:</td>
<td>45.37</td>
</tr>
</tbody>
</table>

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):
- 2-Butoxyethanol (Glycol ether) in vivo (Rabbit): Irritating
- Sodium metasilicate in vivo (Rabbit): Corrosive
- Sodium hydroxide in vivo (Rabbit): Irritating

Serious Eye Damage/Eye Irritation
Product: No data available.
Specified substance(s):
- 2-Butoxyethanol (Glycol ether) Rabbit, 24 - 72 hrs: Irritating
- Sodium hydroxide Rabbit, 1 d: 10% Sodium Hydroxide- Category 1; 0.5% Sodium Hydroxide- Slightly irritating to eyes

Respiratory or Skin Sensitization
Product: No data available.
Carcinogenicity
Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

No carcinogenic components identified

Germ Cell Mutagenicity
In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
2-Butoxyethanol (Glycol ether)  LC 50 (Oncorhynchus mykiss, 96 h): 1,464 mg/l

4-Nonylphenol, ethoxylated  LC 50 (Lepomis macrochirus, 96 h): 84.7 mg/l Experimental result, Key study

Sodium hydroxide  LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 125 mg/l Mortality

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
2-Butoxyethanol (Glycol ether)  EC 50 (Daphnia magna, 48 h): 1,800 mg/l

4-Nonylphenol, ethoxylated  EC 50 (Daphnia magna, 48 h): 23.066 mg/l

Sodium hydroxide  EC 50 (Water flea (Ceriodaphnia dubia), 48 h): 34.59 - 47.13 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
2-Butoxyethanol (Glycol ether)  NOAEL (Danio rerio, 21 d): > 100 mg/l Experimental result, Key study

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
2-Butoxyethanol (Glycol ether)  NOEC (Daphnia magna, 21 d): 100 mg/l

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.
Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):
2-Butoxyethanol (Glycol ether) Log Kow: 0.83

Mobility in soil: No data available.
Other adverse effects: No data available.

13. Disposal considerations

Disposal methods: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:
UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Hydroxide, Sodium Trioxosilicate), 8, PG III

CFR / DOT:
UN3266, Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide, Sodium Trioxosilicate), 8, PG III

IMDG:
UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Hydroxide, Sodium Trioxosilicate), 8, PG III

Further Information:
The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory information

US Federal Regulations
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.
CERCLA Hazardous Substance List (40 CFR 302.4):

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1000 lbs.</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>5000 lbs.</td>
</tr>
<tr>
<td>n-Butanol</td>
<td>5000 lbs.</td>
</tr>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
- Immediate (Acute) Health Hazards
- Skin Corrosion or Irritation
- Serious eye damage or eye irritation

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
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</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1000 lbs.</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>5000 lbs.</td>
</tr>
<tr>
<td>n-Butanol</td>
<td>5000 lbs.</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Chemical

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Sodium metasilicate</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>4-Nonylphenol, ethoxylated</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>10000 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)

<table>
<thead>
<tr>
<th>Chemical Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
</tr>
<tr>
<td>4-Nonylphenol, ethoxylated</td>
</tr>
</tbody>
</table>

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

WARNING
Reproductive Harm - www.P65Warnings.ca.gov
US. New Jersey Worker and Community Right-to-Know Act
   Chemical Identity
   2-Butoxyethanol (Glycol ether)

US. Massachusetts RTK - Substance List
   Chemical Identity
   2-Butoxyethanol (Glycol ether)

US. Pennsylvania RTK - Hazardous Substances
   Chemical Identity
   2-Butoxyethanol (Glycol ether)

US. Rhode Island RTK
   Chemical Identity
   2-Butoxyethanol (Glycol ether)

International regulations

  Montreal protocol
     Not applicable

  Stockholm convention
     Not applicable

  Rotterdam convention
     Not applicable

  Kyoto protocol
     Not applicable

VOC:
   Regulatory VOC (less water and exempt solvent) : 472 g/l
   VOC Method 310 :  4.89 %
Inventory Status:
Australia AICS: One or more components in this product are not listed on or exempt from the Inventory.

Canada DSL Inventory List: One or more components in this product are not listed on or exempt from the Inventory.

EINECS, ELINCS or NLP: One or more components in this product are not listed on or exempt from the Inventory.

Japan (ENCS) List: One or more components in this product are not listed on or exempt from the Inventory.

China Inv. Existing Chemical Substances: One or more components in this product are not listed on or exempt from the Inventory.

Korea Existing Chemicals Inv. (KECI): One or more components in this product are not listed on or exempt from the Inventory.

Canada NDSL Inventory: One or more components in this product are not listed on or exempt from the Inventory.

Philippines PICCS: One or more components in this product are not listed on or exempt from the Inventory.

US TSCA Inventory: All components in this product are listed on or exempt from the Inventory.

New Zealand Inventory of Chemicals: One or more components in this product are not listed on or exempt from the Inventory.

Japan ISHL Listing: One or more components in this product are not listed on or exempt from the Inventory.

Japan Pharmacopoeia Listing: One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision

Revision Date: 08/22/2019
Version #: 2.0
Further Information: No data available.
Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.