1. Identification

1.1. Product identifier

Product Identity: Pulse Ultra
Alternate Names: Pulse Ultra

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use: Laundry Alkali Builder
Application Method: See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name: Gurtler Industries, Inc.
15475 South LaSalle St.
South Holland, IL 60473 US

Emergency

24 hour Emergency Telephone No.: (708) 331-2550
Customer Service: Gurtler Industries, Inc.
INFOTRAC - (800) 535-5053

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Irrit. 1A; H314 Causes severe skin burns and eye damage

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

![Danger Symbol]

H314 Causes Severe skin burns and eye damage.

[Prevention]:

P260 Do not breathe mist/vapors/spray.
P262 Do not get in eyes, on skin or on clothing.
P264 Wash thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
[Response]:
P304+P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P310 Immediately call a POISON CENTER or doctor / physician.
P321 Specific treatment (see information on this label).
P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P362 Take off contaminated clothing and wash before reuse.

[Storage]:
Please refer to Section 7 for Storage information

[Disposal]:
Please refer to Section 13 for Disposal information.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>25-35</td>
<td>Skin Irrit. 1A; H314</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: 1310-73-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyacrylic acid, sodium salt</td>
<td>1.0-5.0</td>
<td>No Data available</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: 9003-01-04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>65-75</td>
<td>No Data available; no phrases apply</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: 7732-18-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation
If symptoms develop move victim to fresh air. If symptoms persist, obtain medical advice/attention.

Eyes
Flush eyes with water for at least 15 minutes while holding eyelids open. Remove contact lenses if worn. If eye irritation persists: Get medical advice/attention.

Skin
Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Ingestion

Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Overview

Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

Chronic effects: Prolonged or repeated exposure can cause drying, defatting and dermatitis.
See section 2 for further details.

Eyes
Causes serious eye damage.

Skin
Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media
Water spray or fog, Carbon dioxide, dry chemical, alcohol foam

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: oxides of sodium, oxides of phosphorous, oxides of carbon

5.3. Advice for fire-fighters
Firefighters should wear full protective clothing including self-contained breathing apparatus.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions
Do not allow spills to enter drains or waterways.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up
Personal precautions: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective space clothing. Keep people away from and upwind of spill/leak.

Environmental precautions: Do not discharge into lakes, streams, ponds or public waters.
Methods for containment: Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or
confined areas.

Methods for cleaning up: Before attempting clean up, refer to hazard data given above. Carefully shovel or sweep up spilled material and place in suitable container.

### 7. Handling and storage

#### 7.1. Precautions for safe handling
Avoid contact with eyes.
Avoid contact with skin and clothing.
Ensure adequate ventilation.
Avoid breathing vapors or mists of this product.
Use good industrial hygiene practices in handling this material.
Wash thoroughly after handling.
When using do not eat or drink.
Keep container tightly closed.
See section 2 for further details. - [Prevention]:

#### 7.2. Conditions for safe storage, including any incompatibilities
Handle containers carefully to prevent damage and spillage.
Incompatible materials: Acids, oxidizers, reducing agents
See section 2 for further details. - [Storage]:

#### 7.3. Specific end use(s)
No data available.

### 8. Exposure controls and personal protection

#### 8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium Hydroxide</td>
<td>OSHA</td>
<td>2 mg/m³ TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>2 mg/m³ ceiling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>2 mg/m³ ceiling</td>
</tr>
<tr>
<td>9003-01-04</td>
<td>Polyacrylic acid, sodium salt</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

Respiratory If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes Tightly fitting safety goggles.

Skin Chemical resistant, impervious gloves should be worn at all time. Wear suitable protective clothing. Protective shoes or boots.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, iridescent green liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not Measured</td>
</tr>
<tr>
<td>pH 1% soln.</td>
<td>12.3</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Evaporation rate (Ether = 1)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Lower Explosive Limit: Not Measured</td>
</tr>
<tr>
<td></td>
<td>Upper Explosive Limit: Not Measured</td>
</tr>
<tr>
<td>Vapor pressure (Pa)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.350-1.370</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Miscible</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Kow)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>&lt;50 cps</td>
</tr>
</tbody>
</table>

9.2. Other information
No other relevant information.

10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur. This product is hygroscopic.
10.2. Chemical stability
Stable under normal circumstances.

10.3. Possibility of hazardous reactions
This product may react with strong acids, strong oxidizing agents and reducing agents.

10.4. Conditions to avoid
Do not mix with alkalis.

10.5. Incompatible materials
Acids, oxidizers, reducing agents, aluminum, powdered aluminum, zinc and tin

10.6. Hazardous decomposition products
Hydrogen, sodium oxides,

### 11. Toxicological information

#### Acute toxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LC50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LC50, mg/L/4hr</th>
<th>Inhalation Gas LC50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide CAS Number: 1310-73-2</td>
<td>No data available</td>
<td>500mg 24 hours (Rabbit) Irrit.</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Polyacrylic acid, sodium salt CAS Number: 9003-01-04</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).
12. Ecological information

12.1. Toxicity
The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details.

Aquatic Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>196 (P. reticulate)</td>
<td>33-100 (Crangon, LC50)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Polyacrylic acid, sodium salt</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
There is no data available on the preparation itself.

12.3. Bioaccumulative potential
Not Measured

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects
No data available.

13. Disposal considerations

13.1. Waste treatment methods
Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

<table>
<thead>
<tr>
<th>DOT (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>UN1824</td>
<td>UN1824</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>UN1824, Sodium Hydroxide, solution, 8, II</td>
<td>Sodium Hydroxide, solution, 8, II</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>DOT Hazard Class: 8</td>
<td>Sub Class: Not Applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>II</td>
<td>Air Class: 8</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>II</td>
<td>II</td>
</tr>
</tbody>
</table>
15. Regulatory information

Regulatory Overview
The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA)
All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification
Class E - Corrosive

US EPA Tier II Hazards
- Fire: No
- Sudden Release of Pressure: No
- Reactive: No
- Immediate (Acute): Yes
- Delayed (Chronic): No

EPCRA 304 RQ: Yes, 1000lb
EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

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End of Document