1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: 122059-GHS-US
Product Name: Fuel Injector Cleaner - Flex Fuel 1038
Reference #: LAB 1038
Company Name: Excelda Manufacturing
12785 Emerson Dr.
Brighton, MI 48116
Emergency Contact: MEDICAL EMERGENCY (888)314-4052
DOT EMERGENCY (800)424-9300
Information: INFORMATION (248)486-3800

Phone Number: (248)486-3800

2. HAZARDS IDENTIFICATION

Skin Corrosion/Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 2A
Carcinogenicity, Category 2
Aspiration Toxicity, Category 1
Aquatic Toxicity (Acute), Category 3
Aquatic Toxicity (Chronic), Category 2
Flammable Liquids, Category 4
Specific Target Organ Toxicity (single exposure), Category 3

GHS Signal Word: Danger
GHS Hazard Phrases:
H227: Combustible liquid.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H351: Suspected of causing cancer.
H402: Harmful to aquatic life.
H411: Toxic to aquatic life with long lasting effects.

GHS Precaution Phrases:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261: Avoid breathing fume/gas/mist/vapors/spray.
P264: Wash thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P235: Keep cool.

GHS Response Phrases:
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+352: IF ON SKIN: Wash with plenty of soap and water.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313: IF exposed or concerned: Get medical attention/advice.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
GHS Storage and Disposal Phrases:
P403+233: Store container tightly closed in well-ventilated place.
P405: Store locked up.
P501: Dispose of contents/container to properly licensed facility or broker.

Potential Health Effects (Acute and Chronic):
See specific route of entry for associated health hazards or other adverse effects.

Inhalation:
May irritate respiratory tract or cause drowsiness or dizziness.

Skin Contact:
Skin Irritant. Contact may cause redness and burning of the skin. Prolonged or repeated contact may cause drying and cracking of the skin and severe skin damage. No harmful effects from skin absorption have been reported.

Eye Contact:
Eye Irritant. Contact may cause stinging, watering, redness, and swelling.

Ingestion:
May be harmful or fatal if swallowed. Aspiration Hazard- This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.

Medical Conditions Generally Aggravated By Exposure:
Skin disorders, blood disorders and liver disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Chemical Name</th>
<th>Concentration</th>
<th>RTECS #</th>
<th>Molecular Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>8008-20-6</td>
<td>Kerosine</td>
<td>60.0 %</td>
<td>OA5500000</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>1398506-12-1</td>
<td>Polyether amine</td>
<td>32.0-36.0 %</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>91-20-3</td>
<td>Naphthalene</td>
<td>0.006-0.3 %</td>
<td>QJ0525000</td>
<td>C10H8</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Emergency and First Aid Procedures:
In the event of an exposure to this product, follow the recommended response indicated for the route(s) of exposure. In all cases if symptoms develop or persist, seek medical attention or advice.

In Case of Inhalation:
If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

In Case of Skin Contact:
Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area thoroughly by washing with mild soap and water. If irritation or redness develops, seek medical attention.

In Case of Eye Contact:
Move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek medical attention. For direct contact, hold eyelids apart and flush the affected eye(s) with clean water for at least 15 minutes. Seek medical attention.

In Case of Ingestion:
Aspiration hazard! Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious, place on the left side with the head down. If possible, do not leave victim unattended. Seek medical attention.
**Signs and Symptoms Of Exposure:**
- **Eyes:** Redness, tearing, irritation or other signs of discomfort.
- **Skin:** Redness, irritation or other signs of discomfort.
- **Inhalation:** Dizziness, headaches, nausea, irritation or other discomfort.
- **Ingestion:** Irritation or other discomfort.

**5. FIRE FIGHTING MEASURES**

**Flash Pt:** 145.00 F (62.8 C)  
**Explosive Limits:**  
- **LEL:** No data.  
- **UEL:** No data.  
**Autoignition Pt:** N.A.  
**Suitable Extinguishing Media:** Foam, CO2, dry chemical or halon is recommended. Use water spray to cool fire exposed surfaces and to protect personnel. Water may be ineffective for extinguishment, unless under favorable conditions by experienced fire fighters. Halon may decompose into toxic material. Carbon Dioxide can displace oxygen. Use caution when applying halon or carbon dioxide in confined spaces.  
**Unsuitable Extinguishing Media:** Water jet.  
**Fire Fighting Instructions:** As with all fires involving chemicals, responders should wear full bunker gear including a self-contained breathing apparatus. Cool containers to keep them from bursting, and remove from high heat areas if possible. Do not direct a solid stream of water at pools of released liquid that are burning since it may cause spattering of burning liquid. Ignitable vapors may form at, above, or near the flash point of this material. Material may burn. Fires involving this material may produce dense black smoke containing hazardous combustion products. Burning liquid and vapors may generate additional chemicals that are harmful. Immiscible with water and may form a floating fire hazard.  

**6. ACCIDENTAL RELEASE MEASURES**

**Protective Precautions, Protective Equipment and Emergency Procedures:** Wear PPE appropriate for size and nature of release. See Section 8 of this SDS for recommended PPE.  
**Environmental Precautions:** Prevent the material from entering drains or water courses. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities as required.  
**Steps To Be Taken In Case Material Is Released Or Spilled:** Ventilate the area. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal.  

**7. HANDLING AND STORAGE**

**Precautions To Be Taken in Handling:** Use in well ventilated area only. Keep away from heat, sparks or other sources of ignition. Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Do not ingest. Keep out of reach of children.  
**Precautions To Be Taken in Storing:** Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Keep away from incompatible materials including oxidizing agents and strongly acidic or alkaline materials. Keep away from food, drink and animal feeding stuffs.  
**Other Precautions:** Empty containers may contain liquid or vapor residue and will have the same hazards as when filled, or partially filled.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>8008-20-6</td>
<td>Kerosine</td>
<td>No data.</td>
<td>TLV: 200 mg/m³</td>
<td>No data.</td>
</tr>
<tr>
<td>1398506-12-1</td>
<td>Polyether amine</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>91-20-3</td>
<td>Naphthalene</td>
<td>PEL: 10 ppm</td>
<td>TLV: 10 ppm</td>
<td>STEL: 15 ppm</td>
</tr>
</tbody>
</table>

Respiratory Equipment (Specify Type): In case of insufficient ventilation, wear suitable respiratory equipment. For cartridge style respirators, cartridges must offer organic vapor protection.

Eye Protection: Safety glasses with side shields, or protective goggles.

Protective Gloves: Chemical resistant gloves, such as nitrile, are recommended.

Other Protective Clothing: It is recommended that impervious clothing be worn as needed to prevent contact.

Engineering Controls (Ventilation etc.): Provide adequate ventilation. General ventilation should be adequate, however if application results in the generation of spray, mists, fumes or vapors, or if application is performed in a poorly ventilated area such as a confined space, additional mechanical ventilation may be required.

Work/Hygienic/Maintenance Practices: Follow good industrial hygienic practices. When using do not eat, drink or smoke. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday. Wash contaminated clothing before re-use. Provide for quick drenching and eye washing when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States: [ ] Gas [X] Liquid [ ] Solid

Appearance and Odor: Clear yellow to amber liquid; characteristic petroleum odor.

Melting Point: No data.

Boiling Point: No data.

Autoignition Pt: N.A.

Flash Pt: 145.00 F (62.8 C) Method Used: Pensky-Marten Closed Cup

Explosive Limits: LEL: No data. UEL: No data.

Specific Gravity (Water = 1): 0.85 - 0.90 at 77.0 F (25.0 C)

Vapor Pressure (vs. Air or mm Hg): N.A.

Vapor Density (vs. Air = 1): N.A.

Evaporation Rate: N.A.

Solubility in Water: N.A.

Solubility Notes: Insoluble in water

Viscosity: < 10 CST at 77.0 F (25.0 C)

Percent Volatile: No data.

VOC / Volume: > 55.000 WT%
10. STABILITY AND REACTIVITY

Stability: Unstable [ ] Stable [ X ]

Conditions To Avoid -

Instability: Stable under normal conditions of storage and handling. Flammable liquid and vapor. Vapor can cause flash fire.

Incompatibility - Materials To Avoid: Avoid contact with strong oxidizing agents and strong acids.

Hazardous Decomposition or Byproducts: Combustion can yield major amounts of oxides of carbon, minor amounts of oxides of sulfur and nitrogen, aldehydes and other products of incomplete combustion. Ammonia may be formed on burning in limited air supply. Propyl amine, polyalkyl glycols, and aliphatic alcohols may also be released.

Possibility of Hazardous Reactions: Will occur [ ] Will not occur [ X ]

Conditions To Avoid -

Hazardous Reactions: None known

11. TOXICOLOGICAL INFORMATION

Toxicological Information: This product has not been tested as a whole. The information contained below pertains to the hazardous components of the mixture.

Expected routes of entry when used as intended include:
Eye and skin contact
Inhalation

CAS# 8008-20-6: Kerosine:
Acute toxicity, LD (Lethal dose), Oral, Rat, > 5.000 GM/KG.
Result:
Behavioral: Somnolence (general depressed activity).
Gastrointestinal: Hypermotility, diarrhea.


CAS# 91-20-3: Naphthalene:
Acute toxicity, LD50, Oral, Rat, 490.0 MG/KG.
Result:
Blood: Changes in spleen.
Nutritional and Gross Metabolic: Weight loss or decreased weight gain.
- Toxicometric Parameters of Industrial Toxic Chemicals Under Single Exposure, Izmerov, N.F., et al., Centre of International Projects, GKNT, Moscow Russia, Vol/p/yr: -,89, 1982

Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG, Mild.
Result:
Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Ptosis.
Behavioral: Ataxia.
Lungs, Thorax, or Respiration: Respiratory depression.

Standard Draize Test, Skin, Rabbit, 0.500 mL, 24 H, Severe.
Result:
Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Olfaction: Other changes.
- Environmental Toxicology and Pharmacology, Elsevier Science, P.O.Box 7247-7682,
Symptoms related to Toxicological Characteristics:

- Eyes: Redness, tearing, irritation or other signs of discomfort.
- Skin: Redness, irritation or other signs of discomfort.
- Inhalation: Dizziness, headaches, nausea, irritation or other discomfort.

Sensitization:

- This product is not known to contain any sensitizers at concentrations which might be expected to cause an allergic reaction in the general population.

Chronic Toxicological Effects:

- May be harmful or fatal if swallowed. Aspiration Hazard- This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.

Carcinogenicity/Other Information:

- This product has not been reviewed by OSHA, IARC, NTP with respect to carcinogenicity. The product does contain the following component(s) that are either known, suspected, or possible carcinogens in quantities greater than 0.1%: naphthalene.

Carcinogenicity: NTP? No       IARC Monographs? No        OSHA Regulated? No

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Chemical Name</th>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
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</thead>
<tbody>
<tr>
<td>8008-20-6</td>
<td>Kerosine</td>
<td>n.a.</td>
<td>n.a.</td>
<td>A4</td>
<td>n.a.</td>
</tr>
<tr>
<td>1398506-12-1</td>
<td>Polyether amine</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>91-20-3</td>
<td>Naphthalene</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with all Federal, State/Provincial and local laws and regulations. As packaged, this product exhibits the following RCRA hazardous characteristic(s): none.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

- DOT Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s. (polyether amine)
- DOT Hazard Class: 9       CLASS 9
- UN/NA Number: UN3082
- Packing Group: III

Additional Transport Information:

- This product may be reclassified according to 49 CFR 173.155.

- This product is considered a Marine pollutant under IATA and IMDG, but it is not a marine pollutant under 49CFR.

- The information in Section 14 pertains to the product when shipped via domestic ground transportation in non-bulk containers. If this material is shipped internationally, via other modes of transportation, or in bulk packaging, other regulations may apply.
15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Chemical Name</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
<th>S. 313 (TRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8008-20-6</td>
<td>Kerosine</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>1398506-12-1</td>
<td>Polyether amine</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>91-20-3</td>
<td>Naphthalene</td>
<td>No</td>
<td>Yes 100 LB</td>
<td>Yes</td>
</tr>
</tbody>
</table>

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections as indicated:

- [X] Yes [ ] No Acute (immediate) Health Hazard
- [X] Yes [ ] No Chronic (delayed) Health Hazard
- [X] Yes [ ] No Fire Hazard
- [ ] Yes [X] No Sudden Release of Pressure Hazard
- [ ] Yes [X] No Reactive Hazard

Other US EPA or State Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Chemical Name</th>
<th>Other US EPA or State Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>8008-20-6</td>
<td>Kerosine</td>
<td>CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No</td>
</tr>
<tr>
<td>1398506-12-1</td>
<td>Polyether amine</td>
<td>CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No</td>
</tr>
<tr>
<td>91-20-3</td>
<td>Naphthalene</td>
<td>CAA HAP,ODC: HAP; CWA NPDES: Yes; TSCA: Yes - Inventory, 4 Test, 8A PAIR; CA PROP.65: Yes</td>
</tr>
</tbody>
</table>

Regulatory Information:

TSCA: All ingredients in this product are listed on the TSCA Inventory or are otherwise exempt.

CA Prop 65: This product is known to contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Regulatory Information Statement:

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes all risk in use of the material.

16. OTHER INFORMATION

Revision Date: 06/02/2016
Preparer Name: GES
Additional Information About This Product: No data available.
Company Policy or Disclaimer: THIS INFORMATION IS FURNISHED WITHOUT WARRANTY, EXPRESSED OR IMPLIED, EXCEPT THAT IS ACCURATE TO THE BEST KNOWLEDGE OF EXCELDA MANUFACTURING. THE DATA ON THIS SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN. EXCELDA MANUFACTURING ASSUMES NO LEGAL RESPONSIBILITY FOR USE OR RELIANCE UPON THIS DATA.