Oleic Acid

1. PRODUCT AND COMPANY INFORMATION

Johnson Manufacturing Company
114 Lost Grove Road
Princeton IA  52768

Emergency Telephone 1-(563)-289-5123
CHEMTREC AFTER HOURS 1-(800)-424-9300
Revised 1/1/2018 by JMC Product Safety

2. HAZARD IDENTIFICATION

GHS Classification:
skin irr 2
eye irr 2B

GHS Label Elements:

OLEIC ACID
WARNING

H Codes: H315, H320
May be harmful if swallowed
May be harmful if inhaled
Causes skin irritation
Causes eye irritation

P Codes:
P264, 280, 301+312, 330, 501, 405, 305+351+338+310, 337+313
Avoid breathing mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Use in a well ventilated area. Wear protective gloves/protective
clothing/eye protection/face protection. In case of inadequate ventilation use respiratory protection. Do not breathe dust/fume/gas/mist/vapor/spray. Do
not eat, drink or smoke when using this product. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately call a POISON
CENTER/Doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you
feel unwell. IF INHALED: Remove victim to to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell. IF IN EYES:
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call POISON
CENTER/Doctor. Wash thoroughly after use. Wash contaminated clothing before reuse. Store in a closed compatible container in cool dry place. Avoid
release to the environment. Dispose of contents/container in accordance with specified local/regional/national/international regulations for disposal. Keep
out of the reach of children. Read label and SDS prior to use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component</th>
<th>CAS #</th>
<th>OSHA TWA</th>
<th>ACIGH TWA</th>
<th>Other limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oleic Acid</td>
<td>112-80-1</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
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</tbody>
</table>

Only those ingredients listed in this section have been determined to be hazardous as defined in 29CFR 1910.1200.
An ingredient marked with an asterisk(*) is also listed in 29CFR 1910.1200(D) #4 as a known or suspected cancer hazard.
+ denotes a chemical regulated as toxic by the Environmental Protection Agency (EPA) as outlined in 40CFR Part 372 (section 313)

4. FIRST AID MEASURES

Signs and symptoms of excessive exposure: Inhalation-Nose & throat irritation, headache, dizziness, difficulty breathing, coughing. Ingestion-nausea,
vomiting, cramps. Skin-redness, burning, rash, dryness. Eye-redness, burning, tearing, blurred vision.

Medical conditions aggravated by exposure: Skin, kidney and respiratory conditions.
Emergency first aid procedures:
Skin: Flush with water immediately - Seek medical attention if necessary
Eyes: Flush with water for 15 minutes - Seek medical attention
Ingestion: DO NOT induce vomiting, drink large amounts of water - seek medical attention. Never give anything by mouth to an unconscious person
Inhalation: Remove to fresh air. Support respiration if required - Seek medical attention
5. FIREFIGHTING MEASURES

Extinguishing media: dry chemical.
Special fire fighting procedures: use self sustaining respiratory suit.
Unusual Fire and Explosion Hazards: Carbon monoxide, carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Methods and materials: Flush into chemical sewer or soak up with a suitable absorbent. Wear adequate protection as described in section 8.
Environmental Precautions: Avoid release to the environment. Collect spillage.

7. HANDLING & STORAGE

Wash thoroughly after use. Wash contaminated clothing before reuse. Store in a closed corrosive resistant container, with corrosive resistant liner, in cool dry place. Keep out of the reach of children. Read label and SDS prior to use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limit Values: See section 3.
Respiratory Protection (type): NE
Ventilation: Local Exhaust preferred  Special: NE
Mechanical: OK  Other: NE
Protective Gloves: plastic or rubber  Eye Protection: Goggles or face shield
Other Protective Clothing or Equipment: as required to avoid contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 286 C  Specific Gravity: 0.895
Vapor Pressure (mm Hg): NE  Melting Point: 30 F
Vapor Density: NE  Evaporation Rate: <1 (butyl acetate=1)
Solubility in water: near 100%  pH: NE
Flash Point: 372 F (TOC)  Flammable Limits: lle: NE  uel: NE
Appearance and odor: Amber liquid, odorless.

10. STABILITY AND REACTIVITY

Stability:  STABLE  Conditions to avoid: none

Incompatibility (materials to avoid): strong bases & acids, oxidizers, sulfides, halogens.
Hazardous Decomposition or Byproducts (incomplete combustion): Carbon oxides, various organic fumes.
Hazardous Polymerization: WILL NOT OCCUR  Conditions to avoid: none

11. TOXICOLOGICAL INFORMATION

Routes of entry: Inhalation: yes  Skin: no  Ingestion: yes

Health Hazards (acute and chronic): Contact with material or fumes may cause skin, eye and respiratory tract irritation. Ingestion may cause digestive tract irritation. Gross or repeated inhalation may result in asthma like condition. Toxicity is considered low via inhalation and ingestion. Chronic exposure may result in respiratory tract and kidney effects. Studies show that potential health risks vary by individual. Always minimize exposure as a precaution.

Carcinogenicity: not determined  NPT? no IARC Monographs? no

12. ECOLOGICAL INFORMATION

Toxicity: NE  Persistence & Degradability: NE
Bio-accumulative Potential: NE  Mobility in Soil: NE
PBT & vPvB Assessment: NE  Other Adverse Effects: NE
13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: dispose of in accordance with all local state and federal regulations
Other Precautions: Avoid skin & eye contact, inhalation & ingestion of fumes and material. Wash contaminated clothing before reuse. Keep away from children.

14. TRANSPORT INFORMATION

DOT Classification: Non-Hazardous
Marine Pollutant: NE

15. REGULATORY INFORMATION

NFPA Classification (NFPA 325M, 8th edition)(Health, Flammability, Reactivity): 1-1-0

16. OTHER INFORMATION

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NE = not established  NA = not applicable  Form 303.215 Rev.D