1.1 Product identifier

Product type : Mixture
Trade name : CA1405 Partially Hydrogenated Coconut Fatty Acid
Label name : CA1405 Partially Hydrogenated Coconut Fatty Acid
Chemical name : Coconut Oil Fatty Acids (C8-18/18:1)
CAS number : 67701-05-7
EC number : 2669290

1.2 Recommended and restricted uses of the substance or mixture

Recommended uses : Industrial, cleaners, lubricants, soaps, surfactants, agricultural additives, coatings, food additives, textile additives.
Restricted uses : None known.

1.3 Company identification

Company name : Chemical Associates – A Division of Univar USA Inc.
Company address : 1270 South Cleveland Massillon Road
                  : Copley, OH 44321-1683
Company telephone : 330-666-5200

1.4 Emergency telephone number

Company emergency telephone : 800-347-2891
CHEMTREC telephone : 800-424-9300

2.1 Classification of the substance or mixture

Appendix A) : Eye irritation category 2B.
GHS physical hazard : None identified
GHS health hazard : Skin irritation category 2.
                   : Eye irritation category 2B.
GHS environmental hazard : Aquatic hazard category 3.

2.2 Label warnings of the substance or mixture

Signal word : Warning.
Hazard statements : H316 Causes mild skin irritation.
                   : H320 Causes eye irritation.
Precautionary statements:
H412 Harmful to aquatic life with long lasting effects.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P332+313: If skin irritation occurs: Get medical advice/attention.
P337+313: If eye irritation persists get medical advice/attention.
P391 Collect spillage.
P501 Dispose of contents/container to an approved disposal facility only in accordance with local, state and federal regulations.

Hazard symbol (pictogram):

2.3 Hazards not otherwise classified:
Other hazards: No additional information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name</th>
<th>Percent</th>
<th>CAS number</th>
<th>Health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name</th>
<th>Typical %</th>
<th>CAS number</th>
<th>Health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dodecanoic acid</td>
<td>Lauric Acid</td>
<td>50</td>
<td>143-07-7</td>
<td>Skin and eye irritant</td>
</tr>
<tr>
<td>Tetradecanoic acid</td>
<td>Myristic Acid</td>
<td>18</td>
<td>544-63-8</td>
<td>None</td>
</tr>
<tr>
<td>Hexadecanoic acid</td>
<td>Palmitic Acid</td>
<td>8</td>
<td>57-10-3</td>
<td>None</td>
</tr>
<tr>
<td>(9Z)-Octadec-9-enoic acid</td>
<td>Oleic Acid</td>
<td>4</td>
<td>112-80-1</td>
<td>None</td>
</tr>
<tr>
<td>Octanoic Acid</td>
<td>Caprylic Acid</td>
<td>7</td>
<td>124-07-2</td>
<td>Corrosive</td>
</tr>
<tr>
<td>Decanoic Acid</td>
<td>Capric Acid</td>
<td>6</td>
<td>334-48-5</td>
<td>Corrosive</td>
</tr>
<tr>
<td>Octadecanoic acid</td>
<td>Stearic Acid</td>
<td>6</td>
<td>57-11-4</td>
<td>None</td>
</tr>
<tr>
<td>Hexanoic Acid</td>
<td>Caproic Acid</td>
<td>1</td>
<td>142-62-1</td>
<td>None</td>
</tr>
</tbody>
</table>

SECTION 4: First-aid measures

4.1 Description of first-aid measures

Exposure route: Inhalation

First-aid measure:
Remove the victim into fresh air. Observe victim’s breathing. If breathing is labored seek immediate medical attention.
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Skin contact
: Wash immediately with soap and water. If irritation occurs, seek medical attention. Launder contaminated clothing.

Eye contact
: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses if present and easy to do. If irritation persists, seek immediate medical (ophthalmologist) attention.

Ingestion
: Rinse mouth with plenty of water. For ingestion of large quantities seek immediate medical attention. Do not induce vomiting. Contact poison control center.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms after inhalation
: May experience dizziness and headache.
: Irritation of the nose and throat.

Symptoms after skin contact
: Mild irritation of the skin may occur.

Symptoms after eye contact
: Irritation of the eye tissue.
: May cause corneal inflammation.

Symptoms after ingestion
: Mild tingling of the tongue and mouth.
: May cause gastrointestinal irritation, nausea and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment after inhalation
: If breathing is labored seek immediate medical attention.

Treatment after skin contact
: If skin irritation persists seek immediate medical attention.

Treatment after eye contact
: If eye irritation persists seek immediate ophthalmologist attention.

Treatment after ingestion
: If ingestion of a large quantity seek immediate poison control center.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media
: Carbon dioxide, alcohol resistant foam and water spray.

Unsuitable media
: None known.

5.2 Specific hazards arising from the substance or mixture

Direct fire hazard
: Not flammable.

Indirect fire hazard
: Exposure to temperature above the flash point (157°C).

Explosive hazard
: Exposure to temperature above the flash point (157°C).

Reactivity
: Reactivity with strong oxidizers.

Combustion products
: Carbon dioxide and carbon monoxide.

5.3 Special protective equipment and precautions for fire-fighters

Protective equipment
: Full protective clothing.

Precautions
: Self contained breathing apparatus.

Emergency response guide
: Not a hazardous material.
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Mixture is an irritant. If mixture is a hot mist or dust, stay upwind.
Protective equipment: Wear rubber gloves, rubber boots, face shield and chemical hazard suit. If material is a hot mist or dust wear dust mask or self contained breathing apparatus.
Emergency procedures: Mark the spill area with hazard tape or cones. Contain the hot liquid spill area with suitable absorbent. Keep away from streams, rivers and lakes. If mixture is a hot mist or dust, alert immediate neighborhood to close windows and doors. Contain and dissipate hot mist or dust via spraying with water.

6.2 Environmental precautions

Precautions: Keep out of streams, rivers and lakes. Mixture is harmful to aquatic organisms. Mixture is regulated as oil under the Clean Water Act. Abide by all laws per this regulation.

6.3 Methods and materials for containment and cleanup

Methods: Use chemical absorbent pigs or manually spread chemical absorbent onto hot liquid spill area. After the mixture is absorbed, dispose in approved waste facility.
Materials: Approved materials include dry earth, sand, clay, chemical absorbent, vermiculite and carbon.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling temperature: About 10 - 20°C above the melt point (22 - 26°C).
Handling equipment: Rubber hoses or stainless steel (grade 316) lines. Stainless steel (grade 316) for pumps.

7.2 Conditions for safe storage, including any incompatibilities

Storage area: Store in dry area. Store at room temperature. Store in dyke area to contain any spills. Protect from heat.
Packaging materials: Polyethylene, stainless steel (grade 316), rubber lined or epoxy lined tanks or drums. Graphite or rubber gaskets.
Incompatibilities: Strong oxidizers.

SECTION 8: Exposure controls/personal protection

8.1 Exposure controls
8.2 Appropriate engineering controls

Engineering controls: If dust exists, install ventilation equipped with carbon canisters. Ventilation should be 10 air exchanges per hour. Local exhaust ventilation is recommended.

8.3 Personal protection equipment

Personal protective equipment: Rubber gloves and safety glasses. Dust mask if dust exists.

SECTION 9: Physical and chemical properties

9.1 Physical and chemical properties

Appearance: Light yellow, semi-solid
Odor: Fatty acid odor
Odor threshold: 10 PPM.
PH: No data available. Mixture is not readily soluble in water.
Melting point: 22 - 26°C.
Boiling point: 160°C.
Flash point: 157°C, Cleveland Open Cup
Evaporation rate: No data available.
Flammability: Not flammable.
Lower flammability limit: No data available.
Upper flammability limit: No data available.
Vapor pressure: 100 mm Hg at 445°F
Vapor density: 6.91 (air = 1).
Relative density: 0.89 g/cm3 25°C.
Solubility: Complete in ethanol and acetone.
Insoluble in water.
Partition coefficient for n-octanol/water: No data available
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: 7.30 mPas 50°C.

9.2 Other information

Other information: No additional information available.
SECTION 10: Stability and reactivity

Reactivity: May react violently with oxidizers.
Chemical stability: Stable under storage conditions.
Possibility of hazardous reactions: Hazardous polymerization does not occur.
Conditions to avoid: Pressure, shock, static discharge or vibration does NOT result in a hazardous condition.
Incompatible materials: Oxidizers and strong bases.
Hazardous decomposition products: Carbon dioxide and carbon monoxide.

SECTION 11: Toxicological information

11.1 Information on the likely routes of exposure

Inhalation exposure: From hot mist or dust.
Skin exposure: From hot mist or dust
Ingestion exposure: Not a likely route of exposure.
Eye contact: From hot mist or dust

11.2 Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: Labored breathing and irritation of the lungs may occur.
Skin contact: Mild skin irritation may occur.
Ingestion: Mild irritation of the mouth, tongue, esophagus and stomach may occur.
Eye contact: Mild eye irritation may occur.

11.3 Delayed and immediate effects and also chronic effects from short and long term exposure

Inhalation: Chronic effects are not known.
Skin contact: Chronic effects are not known.
Ingestion: Chronic effects are not known.
Eye contact: Chronic effects are not known.

11.4 Numerical measures of toxicity

Oral LD50: No data available
Skin LD50: No data available.
Ingestion LD50: Rat > 2000mg/kg. Practically nontoxic
Inhalation LD50: No data available.
Skin primary irritation: Draize = slightly irritating. Unlikely to cause skin sensitization
Eye primary irritation: Draize = slightly irritating
11.5 Carcinogenicity

National Toxicology Program: Not listed.
International Agency for Research on Cancer: Not listed.
OSHA: Not listed.
NIOSH: Not listed.

11.6 Other toxicological information

Reproductive toxicity: Not classified.
Germ cell mutagenicity: Not classified.
Respiratory or skin sensitization: Not classified.
Specific target organ toxicity, single exposure: No data available.
Specific target organ toxicity, repeated exposure: No data available.
Aspiration hazard: No data available.

SECTION 12: Ecological information

12.1.1 Ecotoxicity aquatic

Fish LC50: 96 hour = 900mg/l (bluegill)
Daphnia EC50: No data available
Rotifer EC50: No data available.
Algae EC50: No data available.

12.1.2 Ecotoxicity terrestrial

Avian LC50: No data available

12.2 Persistence and degradability

Water: Product is essentially insoluble in water
Soil: This material is readily biodegradable
Air: 27 hour half life (lauric acid).

12.3 Bio-accumulative potential

Log Kow: LogPow/BCF ca. 7

12.4 Mobility in soil

Surface tension: Air 26.6 mN/m 70°C.
Soil mobility: Koc =7,600 (estimated for lauric acid).
Immobile.
12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment : No data available.

12.6 Other adverse effects

Air : Not dangerous to the ozone layer.
Water : Essentially insoluble in water

SECTION 13: Disposal considerations

13.1 Description of waste residues

Storage tank residues : Hot liquid residue from tank cleaning.
Empty package residues : Solid residue remaining in emptied bag or drum container.
Transport trailer residues : Hot liquid residue from transport trailer cleaning.
Absorbent material : Solid absorbent containing mixture from a spill.

13.2 Safe handling of waste residues

Storage tank residues : Refer to section 7 for safe handling.
Empty package residues : Refer to section 7 for safe handling.
Transport trailer residues : Refer to section 7 for safe handling.
Absorbent material : Refer to section 7 for safe handling.

13.3 Methods of disposal

Storage tank residues : Dispose via an approved incineration facility.
Empty package residues : Dispose via an approved land fill facility.
Transport trailer residues : Dispose only in accordance with local, state and federal regulations.
Absorbent material : Dispose only in accordance with local, state and federal regulations.

13.4 Hazardous waste classification (RCRA)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Regulation</th>
<th>Listed</th>
<th>Hazardous waste number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignitability</td>
<td>40CFR261.21</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Corrosivity</td>
<td>40CFR261.22</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Reactivity</td>
<td>40CFR261.23</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Toxicity</td>
<td>40CFR261.24</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
## SECTION 14: Transport information

### 14.1 UN number

**UN number**: None.

### 14.2 UN proper shipping name

**Proper shipping name**: None.

### 14.3 Transport hazard class

**Hazard class**: None.  
**Hazard label**: None.  
**Hazard pictogram**: None.

### 14.4 Packing group

**Packing group**: None.

### 14.5 Environmental hazards

**Marine pollutant**: Not listed.

### 14.6 Transport in bulk

**US DOT**: Not regulated.  
**IMDG**: Not regulated.  
**IATA**: Not regulated.  
**MARPOL 73/78**: Not regulated.  
**IBC code**: Not regulated.

### 14.7 Special precautions for user

**Special precautions**: No additional information available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the substance or mixture

#### 15.1.1 US regulations

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15.1.2 Chemical inventories

- TSCA USA: Listed.
- AICS Australia: Listed.
- DSL Canada: Listed.
- EC Europe: Listed.
- ECL Korea: Listed.
- IECSC China: Listed.
- ENCS Japan: Listed.
- NzloC New Zealand: Listed.
- PICCS Philippines: Listed.

15.2 Chemical safety assessment

Safety assessment: No additional information available.

SECTION 16: Other information

16.1 Hazard ratings

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS (USA)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NFPA (USA)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

16.2 Safety Data Sheet information

- Revision date (MM/DD/YY): 03/12/2015
- Supersed date (MM/DD/YY): 12/07/2012

16.3 Notice to reader

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Chemical Associates – A Division of Univar USA Inc. bears responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.