SECTION 1: Identification of the substance/mixture and of the company/undertaking

Date issued: 30.08.2015

1.1. Product identifier

Product name: Unger Liquid UE (US-CA-MX / EN)
Article no.: FR110 / FR380

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

Function: Detergent
Product group: Cleaning agents
Use of the substance/preparation: Glass Cleaner - Non-Aerosol
Uses advised against: No specific uses advised against are identified.
The chemical can be used by the general public: Yes

1.3. Details of the supplier of the safety data sheet

Company name: Unger Enterprises LLC
Office address: 425 Asylum Street
Postcode: 06610
City: Bridgeport, CT
Country: United States of America
Tel: +1 800 431 2324
Fax: +1 800 367 1988
E-mail: compliance@ungerglobal.com
Website: http://www.ungerglobal.com

1.4. Emergency telephone number

Identification comments: For Hazardous Materials [or Dangerous Goods] Incident - Spill, Leak, Fire, Exposure, or Accident - Call CHEMTREC Day or Night. Within USA and Canada: 1-800-424-9300 CCN726541 or +1 703-527-3887 (collect calls accepted). Within Mexico, please call + 1 203 366 4884 (collect calls accepted) between 8:30 am – 5:00 pm Eastern Time Zone (EST/EDT).

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to GHS: Skin Irrit. 2; H315
Eye Irrit. 2; H319
Skin Sens. 1; H317

2.2. Label elements

Hazard Pictograms
Composition on the label
Sodium alpha olefine sulfonate: 0.1 - 1.0 % wt/wt, 2-(2-Methoxypropoxy)propanol: 0.1 - 1.0 % wt/wt, Lauramine oxide: 0.1 - 1.0 % wt/wt, Alcohols, C9-11 ethoxylated: 0.1 - 1.0 % wt/wt, Sodium laureth sulfate: 0.1 - 1.0 % wt/wt, Sodium iminodisuccinate: 0.1 - 1.0 % wt/wt, Alcohols, C10-16, ethoxylated: < 0.1 % wt/wt, Sodium chloride: < 0.1 % wt/wt, Magnesium nitrate: < 0.1 % wt/wt, Magnesium chloride: < 0.1 % wt/wt, Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one [CAS No. 26172-55-4] and 2-methyl-2H-isothiazol-3-one [CAS No. 2682-20-4] (3:1) (US): < 0.1 % wt/wt

Signal word
Warning

Hazard statements
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards
Physico-chemical effects
Cf. section 9 for physical-chemical information.

Health effect
Cf. section 11 for toxicological information

Environmental effects
Cf. section 12 for information on ecology.

Symptoms and effects of potential misuse
No information required.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Classification</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium alpha olefine sulfonate (US)</td>
<td>CAS no.: 68439-57-6</td>
<td>Skin Irrit. 2; H315</td>
<td>0.1 - 1.0 % wt/wt</td>
</tr>
<tr>
<td>Synonyms: Sodium C14-16 olefin sulfonate</td>
<td>IUPAC name: Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>Eye Irrit. 2; H319 Aquatic Chronic 2; H411</td>
<td></td>
</tr>
<tr>
<td>2-(2-Methoxypropoxy)propanol (US)</td>
<td>CAS no.: 34590-94-8</td>
<td>Acute tox. 4; H302</td>
<td>0.1 - 1.0 % wt/wt</td>
</tr>
<tr>
<td>Synonyms: Dipropylene glycol monomethyl ether</td>
<td>IUPAC name: 2-(2-Methoxypropoxy)propanol</td>
<td>Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 4; H410</td>
<td></td>
</tr>
<tr>
<td>Lauramine oxide (US)</td>
<td>CAS no.: 1643-20-5</td>
<td></td>
<td>0.1 - 1.0 % wt/wt</td>
</tr>
<tr>
<td>Synonyms: Dodecyldimethylamine oxide</td>
<td>IUPAC name: Dodecyldimethylamine oxide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11 ethoxylated (US)</td>
<td>CAS no.: 68439-46-3</td>
<td>Eye Dam. 1; H318</td>
<td>0.1 - 1.0 % wt/wt</td>
</tr>
<tr>
<td>Synonyms: Alcohols, ethoxylated</td>
<td>IUPAC name: Alcohols, C9-11 ethoxylated, &lt; 2.5 EO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium laureth sulfate (US)</td>
<td>CAS no.: 9004-82-4</td>
<td></td>
<td>0.1 - 1.0 % wt/wt</td>
</tr>
<tr>
<td>Synonyms: Poly(oxy-1,2-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 4: First aid measures

4.1. Description of first aid measures

General

Place unconscious person on the side in the recovery position and ensure breathing can take place. If medical advice is needed, have product container or label at hand.

Inhalation

Due to the small packaging the risk of inhalation is minimal. IF INHALED:
Move into fresh air and keep at rest.

Skin contact

Wash skin with soap and water.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any
contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

Ingestion
Immediately rinse mouth and drink plenty of water (7-10 fl. oz.). Never give liquid to an unconscious person. DO NOT INDUCE VOMITING! If medical advice is needed, have product container or label at hand.

4.2. Most important symptoms and effects, both acute and delayed
Acute symptoms and effects Burning sensation.

4.3. Indication of any immediate medical attention and special treatment needed
Specific details on antidotes Decontamination, symptomatic treatment. No special antidote known.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media Product doesn't ignite. Use fire-extinguishing media appropriate for surrounding materials.
Improper extinguishing media Water jet.

5.2. Special hazards arising from the substance or mixture
Fire and explosion hazards This product is not flammable.

5.3. Advice for firefighters
Personal protective equipment In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures Avoid contact with eyes and skin.
Personal protection measures Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area.
Hazardous combustion products Cf. section 5

6.1.2. For emergency responders
For emergency responders In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required.

6.2. Environmental precautions
Environmental precautionary measures Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up
Cleaning method Absorb spillage with suitable absorbent material. Sweepup or pickup with an industrial vacuum cleaner, store in closed container for disposal.

6.4. Reference to other sections
Other instructions Cf. section 8 for personal protection, and section 13 for waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Handling Observe good chemical hygiene practices. Avoid contact with eyes and prolonged skin contact. Avoid eating, drinking and smoking when using the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage Store at moderate temperatures in dry, well ventilated area.

Conditions for safe storage
Requirements for storage rooms Storage in gateways, passages, stairways, hallways open to public, roofs,
and vessels and attics, cellars and workrooms is not advisable.

Advice on storage compatibility

No incompatibilities known.

7.3. Specific end use(s)

Recommendations

Cf. section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Value</th>
<th>TWA Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Methoxypropoxy)propanol</td>
<td>CAS no.: 34590-94-8</td>
<td>8-hour TWA: 600 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Synonyms: Dipropylene glycol monomethyl ether</td>
<td></td>
<td>PEL / long-term Permissible</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exposure Level / 8 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(shift length)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>U.S. Occupational Safety and Health Standards 29 CFR</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1900 Subpart Z Table Z-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 min.: 900 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>REL / short-term</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recommended Exposure Limit / 15 minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recommendations for Occupational Safety and Health - Compendium of Policy Documents and Statements. National Institute for Safety &amp; Health (NIOSH) / USA</td>
<td></td>
</tr>
</tbody>
</table>

DNEL / PNEC

Recommended monitoring procedures

DFG Air Analysis: Method No. 3 Solvent mixtures.

MTA/MA-017/A89: Determination of glycol ethers.

MétroPol Fiche 022: Éthers de glycol.

8.2. Exposure controls

Precautionary measures to prevent exposure

Organizational measures to prevent exposure

Thoroughly clean hands, forearms, and face after handling of the product, before eating, drinking and lavatory use, and at the end of the work shift.

Technical measures to prevent exposure

Use engineering controls to reduce air contamination to permissible exposure level.

Respiratory protection

Respiratory protection

Under normal conditions of use respiratory protection should not be required.

In case of inadequate ventilation or when the product is heated, use suitable respiratory equipment with gas filter (type A2).

Hand protection

Hand protection

For prolonged or repeated skin contact use suitable protective gloves.

Reference to relevant standard

On basis of test data.

Suitable materials

Gloves of nitrile rubber, PVA or Viton are recommended.

Unsuitable materials

Leather or textile.

Breakthrough time

>480 min

Thickness of glove material

0,4 mm

Eye / face protection

Eye protection

Wear approved, tight fitting safety glasses where splashing is probable.

Skin protection

Skin protection (except hands)

Generally regular work clothing sufficient.
Hygiene / Environmental
Specific hygiene measures
No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Colour: Green.
Odour: Fresh.
Comments, pH (as supplied): No data recorded.

PH (aqueous solution)
Value: 9.5-10.5

Boiling point / boiling range
Value: < 212 °F

Flash point
Value: > 200 °F

Comments, Evaporation rate
No data recorded.

Flammability (solid, gas)
No data recorded.

Comments, Vapour pressure
No data recorded.

Comments, Vapour density
No data recorded.

Density
Value: 8.32
Comments: unit: lb/gal (pound per gallon)

Solubility in water
Unlimited miscible

Comments, Decomposition temperature
No data recorded.

Comments, Viscosity
No data recorded.

Explosive properties
Not explosive

Oxidising properties
Not oxidizing

9.2. Other information

Softening point
Comments: No data available

Content Of Voc
Value: 0.95 %

Physical hazards
Comments, Particle size
Technically not feasible.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity
Stable in normal conditions.

10.2. Chemical stability
Stability
Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions
No hazardous reactions under regular storage and handlings conditions known.

10.4. Conditions to avoid
Conditions to avoid
Heating.

10.5. Incompatible materials
Materials to avoid
Strong acids.

10.6. Hazardous decomposition products
Hazardous decomposition products
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Organic decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Potential acute effects
## Inhalation
No specific health warnings noted. Dust may irritate respiratory system.

## Skin contact
No specific health warnings noted. Dust has an irritating effect on moist skin. Prolonged contact may cause redness and irritation.

## Eye contact
No specific health warnings noted. Prolonged contact may cause redness and/or tearing. Causes serious eye irritation.

## Ingestion
No specific health warnings noted. The product causes irritation of mucous membranes and may cause abdominal discomfort if swallowed. Ingestion may cause irritation of the gastrointestinal tract, vomiting and diarrhoea.

## Aspiration hazard
No data recorded.

**Delayed effects / repeated exposure**

<table>
<thead>
<tr>
<th>Sensitisation</th>
<th>No specific health warnings noted.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT-single exposure</td>
<td>No data available, probably no subchronic toxicity</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>No data available, probably no chronic toxicity</td>
</tr>
</tbody>
</table>

**Carcinogenic, Mutagenic or Reprotoxic**

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
<th>No specific health warnings noted.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutagenicity</td>
<td>No specific health warnings noted.</td>
</tr>
<tr>
<td>Teratogenic properties</td>
<td>No specific health warnings noted.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>No specific health warnings noted.</td>
</tr>
</tbody>
</table>

### SECTION 12: Ecological information

#### 12.1. Toxicity

Persistence and degradability: All organic components are considered biodegradable.

#### 12.3. Bioaccumulative potential

The product is not bioaccumulating.

#### 12.4. Mobility in soil

Mobility: No data on possible environmental effects have been found.

#### 12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

#### 12.6. Other adverse effects

<table>
<thead>
<tr>
<th>Comments, Ozone depletion potential</th>
<th>Ozone depletion potential not known</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comments, Photochemical ozone creation</td>
<td>Ozone formation potential not known</td>
</tr>
<tr>
<td>Comments Global warming potential</td>
<td>Global greenhouse effect not known</td>
</tr>
</tbody>
</table>

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. No specific disposal method required.

Relevant waste regulation:
- USA: Federal waste regulation: 40 CFR 261
- Canada: Canadian Environmental Protection Act (CEPA 1999; s.s..1999, c.33) Part 7 Controlling Pollution and Managing Wastes.

Product classified as hazardous waste: Yes

Packaging classified as hazardous waste: Yes

### SECTION 14: Transport information
14.1. UN number
Comments
No recommendation given.

14.2. UN proper shipping name
Comments
No recommendation given.

14.3. Transport hazard class(es)
Comments
No recommendation given.

14.4. Packing group
Comments
No recommendation given.

14.5. Environmental hazards
Comments
No recommendation given.

14.6. Special precautions for user
Special safety precautions for user
No recommendation given.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Product name
No recommendation given.

Additional information.
Additional information.
The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

ADR / RID - Other information
ADR Other information
No recommendation given.

ADN - Other information
Other information
No recommendation given.

IMDG / ICAO / IATA Other information
IMDG Other information
No recommendation given.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
References (laws/regulations)
International Inventories

USA: All compounds are listed on the TSCA Inventory
Canada: All components are listed either on the DSL or NDSL.

Regulations of the United States of America:


US Federal Regulations:

SARA 313:
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories:
Acute Health Hazard Yes
Chronic Health Hazard No
Fire Hazard No
Sudden release of pressure hazard No
Reactive Hazard No

CWA (Clean Water Act):
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65:
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations:
This product does not contain any substances regulated by state right-to-know regulations.

Regulations of Canada:


Regulations of Mexico:


15.2. Chemical safety assessment
Chemical safety assessment performed No
Chemical Safety Assessment No data recorded.
Exposure scenarios for mixture No
Exposure Scenario Comments No recommendation given.

SECTION 16: Other information
Supplier's notes
The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
Skin Irrit. 2; H315;
Skin Sens. 1; H317;
Eye Irrit. 2; H319;
### List of relevant H-phrases (Section 2 and 3)

- H318 Causes Serious eye damage.
- H302 Harmful if swallowed.
- H331 Toxic if inhaled.
- H400 Very toxic to aquatic life.
- H315 Causes skin irritation.
- H335 May cause respiratory irritation.
- H314 Causes severe skin burns and eye damage.
- H301 Toxic if swallowed.
- H317 May cause an allergic skin reaction.
- H311 Toxic in contact with skin.
- H272 May intensify fire; oxidiser.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H319 Causes serious eye irritation.

### Training advice

Not relevant

### Recommended restrictions on use

Not relevant

### User notes

In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material, as far as not expressly stated otherwise.

### Version

1

### Responsible for safety data sheet

Unger Enterprises LLC