SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: Joy Professional® Manual Pot and Pan Detergent - Concentrate
Product Code(s): 1-30
Product Identifier: 91093202_PROF_NG
Product Type: Finished Product - Professional Use Only
Recommended Use: Dish Care.

Details of the supplier of the safety data sheet
Procter & Gamble Professional
1 P&G Plaza
Cincinnati, Ohio 45202

Procter & Gamble Inc.
P.O. Box 355, Station A
Toronto, ON M5W 1C5
1-800-332-7787
E-mail Address: pgsds.im@pg.com
Emergency Telephone: Transportation (24 HR)
CHEMTREC - 1-800-424-9300
(U.S./ Canada) or 1-703-527-3887
Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:

Hazard Category
Eye Damage / Irritation: Category 2B

Signal Word: WARNING

Hazard Statements: Causes eye irritation
Hazard pictograms: None

Precautionary Statements: Wash hands thoroughly after handling
Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF SWALLOWED:
Drink 1 or 2 glasses of water
3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Synonyms</th>
<th>Trade Secret</th>
<th>CAS-No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfuric acid, mono-C10-16-alkyl esters, sodium salts</td>
<td>Sulfuric acid, mono-C10-16-alkyl esters, sodium salts</td>
<td>Yes</td>
<td>68585-47-7</td>
<td>7 - 13</td>
</tr>
<tr>
<td>Amine oxides, C10-16-alkyl dimethyl</td>
<td>Amine oxides, C10-16-alkyl dimethyl</td>
<td>Yes</td>
<td>70592-80-2</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts</td>
<td>Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts</td>
<td>Yes</td>
<td>68585-34-2</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Ethanol</td>
<td>Ethanol</td>
<td>Yes</td>
<td>64-17-5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Limonene</td>
<td>Cyclohexene, 1-methyl-4-(1-methylene), (4R)-</td>
<td>Yes</td>
<td>5989-27-5</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

Additional information  
Actual concentrations withheld as trade secret in accordance with Canadian HPR

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact  
Rinse with plenty of water. Get medical attention immediately if irritation persists.

Skin contact  
Rinse with plenty of water. Get medical attention if irritation develops and persists.

Ingestion  
Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

Inhalation  
Move to fresh air. If symptoms persist, call a physician.

Most important symptoms/effects, acute and delayed  
None under normal use conditions.

F. Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician  
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media  
Dry chemical, CO₂, alcohol-resistant foam or water spray.

Unsuitable Extinguishing Media  
None.

Special hazard  
None known.

Special protective equipment for fire-fighters  
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

Advice for emergency responders Use personal protective equipment as required.

Methods and materials for containment and cleaning up

Methods for containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Mexico PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>STEL: 1000 ppm</td>
<td>TWA: 1000 ppm</td>
<td>TWA: 1900 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(vacated) TWA: 1000 ppm</td>
<td>(vacated) TWA: 1900 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mexico: TWA 1000 ppm</td>
<td>Mexico: TWA 1900 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Alberta</th>
<th>Quebec</th>
<th>Ontario TWAEV</th>
<th>British Columbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>TWA: 1000 ppm</td>
<td>TWA: 1000 ppm</td>
<td>STEL: 1000 ppm</td>
<td>STEL: 1000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 1880 mg/m³</td>
<td>TWA: 1880 mg/m³</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No relevant exposure guidelines for other ingredients

Exposure controls

Engineering Measures Distribution, Workplace and Household Settings:
Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction
Personal Protective Equipment

Eye Protection Distribution, Workplace and Household Settings: No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Use appropriate eye protection

Hand Protection Distribution, Workplace and Household Settings: No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Protective gloves

Skin and Body Protection Distribution, Workplace and Household Settings: No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Wear suitable protective clothing

Respiratory Protection Distribution, Workplace and Household Settings: No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY): In case of inadequate ventilation wear respiratory protection

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C Liquid
Appearance Clear Yellow
Odor Lemon
Odor threshold No information available

Property Values Note
pH value 9
Melting Point / Freezing Point No information available
Boiling point / boiling range No information available
Flash point 46.1 - 57 °C / 115 - 134.6 °F Closed cup. Does not sustain combustion. Product is an aqueous solution containing <=24% alcohol and >=50% water.

Evaporation rate No information available
Flammability (solid, gas) No information available
Flammability Limits in Air
Upper Flammability limit No information available
Lower Flammability Limit No information available
Vapor pressure No information available
Vapor density No information available
Relative density No information available
Water solubility No information available
Partition coefficient: n-octanol/water No information available
Autoignition temperature No information available
Decomposition temperature No information available
Viscosity No information available
VOC Content (%) Products comply with US state and federal regulations for VOC content in consumer products.

10. STABILITY AND REACTIVITY
Reactivity
None under normal use conditions.

Stability
Stable under normal conditions.

Hazardous polymerization
Hazardous polymerization does not occur.

Hazardous Reactions
None under normal processing.

Conditions to Avoid
None under normal processing.

Incompatible materials
None in particular.

Hazardous Decomposition Products
None under normal use conditions.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation
No known effect.

Skin contact
No known effect.

Ingestion
No known effect.

Eye contact
Irritating to eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity
No known effect.

Skin corrosion/irritation
No known effect.

Serious eye damage/eye irritation
Irritating to eyes.

Skin sensitization
No known effect.

Respiratory sensitization
No known effect.

Germ cell mutagenicity
No known effect.

Neurological Effects
No known effect.

Reproductive toxicity
No known effect.

Developmental toxicity
No known effect.

Teratogenicity
No known effect.

STOT - single exposure
No known effect.

STOT - repeated exposure
No known effect.

Target Organ Effects
No known effect.

Aspiration hazard
No known effect.

Carcinogenicity
No known effect.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amine oxides, C10-16-alkyldimethyl</td>
<td>70592-80-2</td>
<td>LD50: 1064 mg/kg, bw. OECD 401. Species: Rat</td>
<td>LD50: &gt; 2000 mg/kg, 24 hours, bw. OECD 402. Species: Rat</td>
<td>-</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts</td>
<td>68585-34-2</td>
<td>&gt;2001 mg/kg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>10470 mg/kg bw (OECD 401)</td>
<td>-</td>
<td>116.9 mg/L air (//OECD 403)</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecotoxicity
The product is not expected to be hazardous to the environment.

Persistence and degradability
No information available.
Bioaccumulative potential: No information available.
Mobility: No information available.
Other adverse effects: No information available.

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

**Waste from Residues/Unused Products**: Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**: Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Codes (non-household setting)**: 331

### 14. TRANSPORT INFORMATION

**DOT**: Not regulated

**IMDG**: Not regulated

**IATA**: Not regulated

### 15. REGULATORY INFORMATION

**U.S. 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

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
<th>CERCLA/SARA 302 TPQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>1000 lb</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>1000 lb</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

**California Proposition 65**

This product is not subject to warning labeling under California Proposition 65.
U.S. State Regulations (RTK)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>New Jersey</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>Massachusetts</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>Pennsylvania</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

International Inventories

United States
All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada
This product is in compliance with CEPA for import by P&G.

Legend
United States Toxic Substances Control Act Section 8(b) Inventory (TSCA)
CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

Issuing Date: 23-Mar-2017
Revision Date: 14-May-2018

Disclaimer.
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of SDS