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
2 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: pgds.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
Precautionary Statements - Storage None

Precautionary Statements - Disposal Dispose of contents/container in accordance with local regulation

Hazards not otherwise classified (HNOC) None

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>No</td>
<td>68585-47-7</td>
<td>10 - 15</td>
</tr>
<tr>
<td>Amine oxides, C10-16-alkyldimethyl</td>
<td>Amine oxides, C10-16-alkyldimethyl</td>
<td>No</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>No</td>
<td>68585-34-2</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Ethanol</td>
<td>Ethanol</td>
<td>No</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>No</td>
<td>5989-27-5</td>
<td>0.1 - 1.0</td>
</tr>
</tbody>
</table>

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.

Indication of immediate medical attention and special treatment needed, if necessary
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
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH
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
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></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 1900 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(vacated) TWA: 1000 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(vacated) TWA: 1900 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mexico: TWA 1000 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mexico: TWA 1900 mg/m³</td>
<td></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></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 1880 mg/m³</td>
<td>TWA: 1880 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL: 1000 ppm</td>
<td>STEL: 1000 ppm</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

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State @20°C</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear Yellow</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Lemon</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH value</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>46.1 - 57 °C / 115 - 134.6 °F</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Viscosity of Product</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>Products comply with US state and federal regulations for VOC content in consumer products.</td>
<td></td>
</tr>
</tbody>
</table>
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.
Materials to avoid  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

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  
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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>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td></td>
<td></td>
<td>X</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:** 23-Mar-2017  
**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