SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name
DEFY

Other means of identification

Product Code 089
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Concentrated Institutional Cleaner.
Uses advised against No information available

Manufacturer Address
Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

Emergency telephone number
Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation Category 2B

Label elements

Emergency Overview

Warning

Hazard statements
Causes eye irritation

Appearance aqueous solution Physical state liquid
Odor Light Floral

Precautionary Statements - Prevention
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

Hazard not otherwise classified (HNOC)

Other Information
Unknown Acute Toxicity
0.5% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
</table>

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4. FIRST AID MEASURES

First aid measures

**Eye contact**
Flush immediately with plenty of water for 15 minutes. Lift upper and lower eyelids for complete rinsing. If irritation persists after rinsing, get medical attention.

**Skin Contact**
Flush with water for 15 minutes. If irritation persists after rinsing, get medical attention. Remove contaminated clothing and wash before reuse.

**Inhalation**
Remove victim to fresh air. If breathing difficulty occurs or persists, get medical attention.

**Ingestion**
Rinse mouth with water. Give water to dilute. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to a semi-comatose, comatose, convulsing or unconscious person.

Most important symptoms and effects, both acute and delayed

**Symptoms**
Causes drying and irritation to eyes. Repeated or prolonged contact may cause irritation and drying to skin in sensitive individuals. May be harmful if swallowed. Inhalation of spray mist may irritate upper respiratory tract.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians**
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
Water. Foam. Carbon dioxide (CO2). Dry chemical. Alcohol resistant foam.

**Unsuitable extinguishing media**
None known.

**Specific hazards arising from the chemical**
No information available.

**Hazardous combustion products**
Carbon oxides.

**Explosion data**
- **Sensitivity to Mechanical Impact**: None.
- **Sensitivity to Static Discharge**: None.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Avoid direct spray of water on product, foam will be created that could spread fire. Cool fire exposed containers.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Avoid contact with eyes. Extremely slippery when spilled.

**Environmental precautions**
See Section 12 for additional ecological information.

**Methods for containment**
Contain spill.
Methods for cleaning up

Small spills can be flushed with water to drain. Large Spills: Recover free liquid. Absorb with an inert ingredient such as sand, earth, vermiculite and shovel into containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Do not get in eyes, on skin, or clothing. Avoid breathing vapors or mists. Keep away from direct sunlight. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep tightly closed in a dry and cool place. Keep out of the reach of children.

Incompatible materials

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene Glycol Methyl Ether 34590-94-8</td>
<td>STEL: 150 ppm TWA: 100 ppm</td>
<td>TWA: 600 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m³ (vacated) S* S*</td>
<td>IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m³ STEL: 150 ppm STEL: 900 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

A source of water to rinse eyes in case of contact should be maintained in the work area.

Individual protection measures, such as personal protective equipment

Eye/face protection

Avoid contact with eyes.

Skin and body protection

Not required for normal use.

Respiratory protection

Not required for normal use.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>aqueous solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>clear red</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Light Floral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>11.0-11.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Avoid extreme heat.

Incompatible materials
Strong oxidizing agents.

Hazardous Decomposition Products
Carbon oxides. During a fire thermal decomposition may release elemental oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Product Information</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene Glycol Methyl Ether (34590-94-8)</td>
<td>5230 mg/kg (Rat)</td>
<td>9500 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on toxicological effects
Symptoms
No information available.

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

Sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
No information available.

Reproductive toxicity
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Aspiration hazard
No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity
0.5% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects

5% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene Glycol Methyl Ether</td>
<td>-</td>
<td>10000: 96 h Pimephales promelas mg/L LC50 static</td>
<td>1919: 48 h Daphnia magna mg/L LC50</td>
</tr>
<tr>
<td>34590-94-8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.

Bioaccumulation
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene Glycol Methyl Ether</td>
<td>-0.064</td>
</tr>
<tr>
<td>34590-94-8</td>
<td></td>
</tr>
</tbody>
</table>

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Rinse empty container and offer for recycling.

14. TRANSPORT INFORMATION

DOT
Not regulated
15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Complies/Does not comply</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

**Legend:**
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

**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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene Glycol Methyl Ether - 34590-94-8</td>
<td></td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazard Categories**

- Acute health hazard: No
- 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**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene Glycol Methyl Ether - 34590-94-8</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**U.S. EPA Label Information**
EPA Pesticide Registration Number  Not Applicable

### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>Physical hazards 0</td>
</tr>
<tr>
<td>HMIS</td>
<td>Health hazards</td>
<td>Flammability</td>
<td>Physical</td>
<td>Personal protection X</td>
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<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>hazards 0</td>
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</tr>
</tbody>
</table>

Prepared By: kcs
Issue Date: 09-May-2014
Revision Date: 15-Sep-2014
Revision Note: No information available

Disclaimer:
The information provided in this Material 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 Safety Data Sheet