SAFETY DATA SHEET

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

Product Name: DEFEND

Other means of identification
Product Code: 088
Synonyms: None

Recommended use of the chemical and restrictions on use
Recommended Use: Quaternary Cleaner/Disinfectant.
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

<table>
<thead>
<tr>
<th>Acute Toxicity, inhalation</th>
<th>Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
</tbody>
</table>

Label elements

Warning
Hazard statements
Causes serious eye irritation.
Causes skin irritation.
Harmful if inhaled.

Appearance: aqueous solution
Physical state: liquid
Odor: Citrus

Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Use only in well-ventilated areas

Precautionary Statements - Response
Specific treatment (see section 4 on this label)
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 ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell

Hazards not otherwise classified (HNOC)
None Known.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>497-19-8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>64-02-8</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Eye contact
Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate 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 serious eye irritation. Causes skin irritation. Ingestion of large quantities may cause nausea, vomiting, diarrhea. Inhalation is harmful.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Water spray (fog). Carbon dioxide (CO2). Dry chemical. Foam.

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

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. Use water spray to cool fire exposed containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Use personal protective equipment as required. Avoid contact with eyes and skin.
Environmental precautions
See Section 12 for additional ecological information.

Methods for containment
Completely contain spilled material with dikes or sand bags, etc.

Methods for cleaning up
Use a non-combustible material like vermiculite or sand to soak up the product and place into a container for later disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Provide adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep containers tightly closed and properly labeled. Containers that have been emptied will retain product residue and should be handled as if they were full. Store in a cool, dry, well-ventilated place away from incompatible materials. Wash hands before eating, drinking, using tobacco, applying make-up or using the toilet. Do not store, use, and/or consume foods, beverages, tobacco in areas where this product is stored. FROM EPA LABEL: STORAGE AND DISPOSAL DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL PESTICIDE STORAGE - Store in a dry place no lower in temperature than 50˚ F. or higher than 120˚ F.

Incompatible materials
Strong oxidizing agents. Anionic surfactants.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Appropriate engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection
Eye protection is recommended.

Skin and body protection
If repeated or prolonged contact is likely, rubber gloves are recommended. If contact is anticipated, wear protective clothing appropriate to use conditions.

Respiratory protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

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 • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>aqueous solution</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>clear yellow</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Citrus</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</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
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents. Anionic surfactants.

Hazardous Decomposition Products

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
No data available

Inhalation
May cause irritation of respiratory tract.

Eye contact
Causes serious eye irritation.

Skin Contact
Causes skin irritation.
Ingestion
May be harmful if swallowed.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD$_{50}$</th>
<th>Dermal LD$_{50}$</th>
<th>Inhalation LC$_{50}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>4090 mg/kg (Rat)</td>
<td>-</td>
<td>2300 mg/m$^3$ (Rat) 2 h</td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>10 g/kg (Rat)</td>
<td>-</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
9.3% of the mixture consists of ingredient(s) of unknown toxicity

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

- ATEmix (oral) 36583 mg/kg
- ATEmix (inhalation-dust/mist) 38.3 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects

9.3% 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>Sodium carbonate</td>
<td>242: 120 h Nitzschia mg/L EC50</td>
<td>300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static</td>
<td>265: 48 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>1.01: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>41: 96 h Lepomis macrochirus mg/L LC50 static 59.8: 96 h Pimephales promelas mg/L LC50 static</td>
<td>-</td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Disposal of wastes

STORAGE AND DISPOSAL DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL PESTICIDE STORAGE - Store in a dry place no lower in temperature than 50˚ F. or higher than 120˚ F. CONTAINER DISPOSAL - Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container promptly after emptying. Triple rinse as follows: Fill container 1/4 full with water and recap. Agitate vigorously. Follow Pesticide Disposal instructions for rinsate disposal. Drain for 10 seconds after the flow begins to drip. Repeat procedure two more times. Then offer for recycling or reconditioning. If not available, puncture and dispose in a sanitary landfill. A container, such as a spray bottle, can be reused once empty. First prepare an appropriate use-solution from concentrate. A dilution dispenser can be used to prepare the use-solution. Remove cap/spray nozzle from empty container. Fill empty container with a newly prepared use-solution. Replace cap/spray nozzle. Place correct use dilution label on the newly filled container. PESTICIDE DISPOSAL - Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging

Do not reuse container.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>Corrosive</td>
</tr>
<tr>
<td>497-19-8</td>
<td></td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

Not regulated

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Does not comply</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Does not comply</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>Does not comply</td>
</tr>
<tr>
<td>KECL</td>
<td>Does not comply</td>
</tr>
<tr>
<td>PICCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>AICS</td>
<td>Does not comply</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
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

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire hazard</td>
<td>No</td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

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

U.S. EPA Label Information

EPA Pesticide Registration Number 1839-95-150
EPA Statement This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS. DANGER. KEEP OUT OF REACH OF CHILDREN. CORROSIVE. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. Wear goggles or face shield, rubber gloves and protective clothing. Harmful if swallowed. Remove contaminated clothing and wash before reuse. Wash hands before eating drinking, chewing gum, using tobacco or using the toilet.

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>Personal protection X</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Prepared By lmt
Issue Date 02-Apr-2015
Revision Date 16-Feb-2017
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