Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name  DEE FO® XRM-1547A
Product code  U11547A

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

Relevant identified uses  Anti-foaming agent (defoamer)
Uses advised against  Consumer use

1.3. Details of the supplier of the safety data sheet

Manufacturer  Munzing - Ultra Additives LLC.
1455 Broad Street
Bloomfield NJ 07003
United States

Email: info@munzing.us
Phone: 1-973-279-1306

Supplier  Münzing Chemie GmbH
Münzingstrasse 2
74232 Abstatt
Germany

Email: info@munzing.com
Phone: +49 (0) 7131/987-0

1.4. Emergency telephone number

Emergency telephone  CHEMTREC (24 hrs - for spill, leak or transportation incidents):
US: 1-800-424-9300
non-US: 1-703-527-3887

EU: +49 761 19240 (VIZ Freiburg)

Europe  112

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC
Symbol
Not dangerous

Full text of R-phrases: see section 16

2.2. Label Elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]
EUH210 - Safety data sheet available on request

2.3. Other hazards

No information available.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature of the product
Polymer dispersion.

Full text of R-phrases: see section 16
Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Skin Contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation
Move victim to fresh air.

Ingestion
Clean mouth with water.

Self-Protection of the First Aider
Use personal protection equipment.

4.2. Most important symptoms and effects, both acute and delayed

Most important symptoms and effects
No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician
Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media
In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
No information available.
5.2. Special hazards arising from the substance or mixture

Hazardous Combustion Products  Thermal decomposition can lead to release of irritating gases and vapours.

5.3. Advice for firefighters

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

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions  Use personal protection equipment. Avoid contact with skin, eyes and clothing.

Protective precautions  Use personal protection equipment.

6.2. Environmental precautions

Environmental Precautions  Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for Containment  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).

Methods for Clean-Up  Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Reference to other sections  See Sections 5 & 7 for additional information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling  Handle in accordance with good industrial hygiene and safety practice.

General Hygiene Considerations  Handle in accordance with good industrial hygiene and safety practice. Take off contaminated clothing and wash before reuse. Slippery, can cause falls if walked on.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions  Keep tightly closed in a dry and cool place.

7.3. Specific end use(s)

Specific Uses  No information available.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Derived No Effect Level (DNEL)  No information available.

Predicted No Effect Concentration (PNEC)  No information available.

8.2. Exposure controls

_____________________________________________________________________________________________
Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection
Tight sealing safety goggles.

Skin protection
Wear suitable protective clothing and gloves.

Respiratory protection
In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

Environmental exposure controls
No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. 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>Translucent, Light yellow</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100 °C</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 100 °C</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limit 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>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.02</td>
<td>No information available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Dispersible in water</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>&lt;4000 cps@25C</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>VOC content (%)</td>
<td>&lt;5</td>
<td></td>
</tr>
</tbody>
</table>

9.2. Other information

VOC content (%)<5

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity
Stable under normal conditions.

10.2. Chemical stability

Chemical Stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.
10.4. Conditions to avoid

Conditions to Avoid
Heat, flames and sparks.

10.5. Incompatible materials

Incompatible Materials
Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products
Carbon oxides. Silicon dioxide.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute Toxicity

Product Information

| Eyes        | May cause eye irritation. |
| Skin       | No known effect.         |
| Inhalation | Health injuries are not known or expected under normal use. |
| Ingestion  | Health injuries are not known or expected under normal use. |

Unknown acute toxicity
46.39096288% of the mixture consists of ingredient(s) of unknown toxicity.

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified amorphous silica</td>
<td>= 3160 mg/kg (Rat)</td>
<td></td>
<td>2.08 mg/l, 4h (rat)</td>
</tr>
<tr>
<td>Polyalkylene glycol</td>
<td>&gt; 2 g/kg (Rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatty alcohol, ethoxylated</td>
<td>= 2900 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
No information available.

Eye damage/irritation
No information available.

Sensitization
Not available.

Mutagenic effects
No information available.

Reproductive Effects
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Aspiration Hazard
No information available.

Carcinogenic effects
No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity

Information given is based on data on the components and the ecotoxicology of similar products.

Unknown Aquatic Toxicity

93.81396% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

<table>
<thead>
<tr>
<th>Component</th>
<th>Algae</th>
<th>Fish</th>
<th>Daphnia magna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified amorphous silica</td>
<td>-</td>
<td>LC50: &gt;10000 mg/L, 96h (Brachydanio rerio)</td>
<td>EC50: &gt;10000, 24h (daphnia)</td>
</tr>
<tr>
<td>Polyalkylene glycol</td>
<td>-</td>
<td>LC50 (96h): &gt;100 mg/L (Rainbow trout)</td>
<td>EC50 (48 h): &gt; 100 mg/l</td>
</tr>
<tr>
<td>Treated silica</td>
<td>-</td>
<td>LC50: &gt;10000 mg/l, 96h</td>
<td>EC50: &gt;10000 mg/l, 24h</td>
</tr>
<tr>
<td>Fatty alcohol, ethoxylated</td>
<td>-</td>
<td>LC50 (96 h): &lt;5.6 mg/L (Rainbow trout)</td>
<td>-</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Persistence and degradability  
No information available.

12.3. Bioaccumulative potential

Bioaccumulation/Accumulation  
No information available.

12.4. Mobility in soil

Mobility in Environmental Media  
No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment  
Not applicable.

12.6. Other adverse effects

Other adverse effects  
No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues-unused products  
Can be landfilled or incinerated, when in compliance with local regulations.

Contaminated packaging  
Empty remaining contents.

Waste codes / waste designations according to EWC / AVV  
Not applicable.

Section 14: TRANSPORT INFORMATION

ADR/RID  
Not regulated

IMDG/IMO  
Not regulated

IATA  
Not regulated

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories
US TSCA Complies
Australia (AICS) Contact manufacturer
Canada (DSL) Complies
China (IECSC) Complies
Europe (EINECS/ELINCS/NLP) Complies
Japan (METI) Contact manufacturer
South Korea (KECL) Complies
Philippines (PICCS) Contact manufacturer
New Zealand Complies

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

WGK Classification (VwVwS) Water endangering class = 1 (self estimation)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use:
This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV). This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

15.2. Chemical safety assessment

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of R-phrases referred to under sections 2 and 3
Not applicable

Legend
SVHC: Substances of Very High Concern for Authorization:

TWA - TWA (time-weighted average)
STEL - STEL (Short Term Exposure Limit)
Ceiling - Maximum limit value
* - Skin designation

Classification procedure Minimum classification

Issue Date: 2009-02-06
Revision Date: 2015-03-10
Reason for revision Update to Format.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
Disclaimer
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End of Safety Data Sheet