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

Product identifier
Product Name VDISTILL™ DV53 Distilled Soy Fatty Acid

Other means of identification
Product Code DV-53

Recommended use of the chemical and restrictions on use
Recommended Use Commercial product.

Details of the supplier of the safety data sheet
Manufacturer Address Vantage Oleochemicals, Inc.
4650 South Racine Avenue
Chicago, IL 60609 USA
Emergency Telephone Number +1-773-376-9000
Company Phone Number CHEMTREC International +1-703-527-3887
Emergency Telephone Number CHEMTREC USA: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard.
This is not a dangerous substance or mixture according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Label Elements

EMERGENCY OVERVIEW

Color Pale yellow Physical State Soft solid Odor Faint

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatty acids, soya</td>
<td>68308-53-2</td>
<td>100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

FIRST AID MEASURES

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
Skin contact
Wash exposed skin with soap and plenty of water. Consult a physician if irritation occurs.

Inhalation
Remove to fresh air and keep at rest in a position comfortable for breathing. Consult a physician if breathing is difficult or other respiratory symptoms develop.

Ingestion
DO NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Dry powder, Foam, Carbon dioxide, Water fog.

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions
Use personal protective equipment.

Environmental precautions
Environmental precautions
Prevent release to surface water.

Methods and material for containment and cleaning up

Methods for Containment
Dike to collect large liquid spills.

Methods for Cleaning Up
Absorb with an inert material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling
Handle in accordance with good industrial hygiene and safety practice. Avoid generation of mist/aerosol.

Conditions for safe storage, including any incompatibilities

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

Packaging Material
Store tightly closed in original container.

Incompatible materials
Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Control parameters

Exposure Guidelines
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Measures
Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face Protection
Safety glasses with side-shields.

Skin and Body Protection
Impervious gloves.

Respiratory Protection
Use NIOSH/MSHA approved respirator if ventilation is not sufficient to control mist/aerosol.

Hygiene Measures
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>Soft solid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Opaque</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Pale yellow</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Faint</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>&gt; 260 °C / 500 °F</td>
<td>@10 hPa</td>
</tr>
<tr>
<td>Flash Point</td>
<td>209 °C / 408 °F</td>
<td>PMCC</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>May burn if exposed to open flame.</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limits</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>&lt; 1 mm Hg</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

Other Information

10. STABILITY AND REACTIVITY

Reactivity
Not reactive

Chemical stability
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**
None under normal processing.

**Hazardous Polymerization**
Hazardous polymerization does not occur.

**Conditions to Avoid**
Extremes of temperature and direct sunlight.

**Incompatible Materials**
Strong oxidizing agents.

**Hazardous Decomposition Products**
None known based on information supplied.

### 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**
Product does not present an acute toxicity hazard based on known or supplied information

- **Inhalation**
  There is no data available for this product.

- **Eye contact**
  Not irritating to eyes.

- **Skin contact**
  Not irritating to skin.

- **Ingestion**
  No known hazard by swallowing.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatty acids, soya</td>
<td>&gt; 3.2g/mg (rat)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>68308-53-2</td>
<td></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**

- **Skin corrosion/irritation**
  Not irritating to skin.

- **Serious eye damage/eye irritation**
  Not irritating to eyes.

- **Sensitization**
  Not a skin sensitizer.

- **Mutagenic Effects**
  Negative in the Ames test.

- **Carcinogenicity**
  This substance is not classified as a carcinogen by IARC, OSHA, ACGIH, or NTP.

**Reproductive Toxicity**
This product does not contain any known or suspected reproductive hazards.

- **Developmental Toxicity**
  No known hazard.

- **Teratogenic**
  No known hazard.

- **STOT - single exposure**
  None under normal use conditions.

- **STOT - repeated exposure**
  No known hazard.

- **Aspiration hazard**
  No known hazard.

**Numerical measures of toxicity-Product Information**
Not determined

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Not toxic to aquatic organisms at maximum water solubility.

**Persistence and degradability**
Readily biodegradable.
Bioaccumulation/Accumulation
Not expected to be bioaccumulative.

Mobility
No data available.

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

<table>
<thead>
<tr>
<th>Waste Disposal Method</th>
<th>Dispose of in accordance with applicable regulations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contaminated Packaging</td>
<td>Dispose of in accordance with applicable regulations.</td>
</tr>
</tbody>
</table>

### 14. TRANSPORT INFORMATION

**DOT**
Not regulated

**TDG**
Not regulated

**MEX**
Not regulated

**ICAO**
Not regulated

**IATA**
Not regulated

**IMDG / IMO**
Not regulated

**RID**
Not regulated

**ADR**
Not regulated

**ADN**
Not regulated

### 15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>TSCA</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</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 Commercial Chemical Substances/EU 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

**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

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td>No</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>

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

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Hazards</th>
<th>Personal Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health Hazard</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>B</td>
</tr>
</tbody>
</table>

Prepared by: Product Steward
Issuing Date: 06-Mar-2015
Revision Date: 06-Mar-2015
Revision Note: Initial Issue

Disclaimer

The information in this safety data sheet (SDS) is believed to be accurate and is given in good faith but no representation or warranty as to its completeness or accuracy is made. Suggestions for uses or applications are only opinions. Users are responsible for determining the suitability of these products for their own particular purpose. No representation or warranty, express or implied, is made with respect to information or products including without limitation warranties of merchantability or fitness for a particular purpose or non-infringement of any third party patent or other intellectual property rights including without limit copyright, trademark and designs. Any trademarks identified herein are trademarks of Vantage Oleochemicals, Inc.

End of MSDS