(Material) Safety Data Sheet



| Transport Symbol | WHMIS | NFPA | Personal Protective Equipment |
|----------------------------|----------------------------|-------------|-------------------------------|
| Not controlled | Not controlled | | |
| Original Preparation Date: | 04-Jan-2010 Revision Date: | 12-Feb-2014 | Revision Number: 2 |

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

Product Name: Scientific Boil Synonyms: Degummed Linseed Oil

with Driers

Product Code: 001030

Contact Manufacturer: ADM Specialty Oils & Fats 126 La Grange St. Red Wing, MN 55066 +1-651-388-7111 Emergency response telephone number: Chemtrec 1-800-424-9300 (CCN 1635) Use of the Substance / Preparation : For industrial use only

2. HAZARDS IDENTIFICATION

| | Emergency Overview | |
|--|--|--|
| Spontaneous combustion (fire) may i | result from oil soaked materials such as | s rags, steel wool, paper, and clothing. |
| Place soaked materials in a sealed, | metal container to prevent this. The pro | oduct contains no substances which at |
| their given concentration, are considered to be hazardous to health. | | |
| Appearance | Physical State | Odor |
| Clear Amber | Liquid | Characteristic |

This product is NOT classified as hazardous according to 29 CFR 1910, amended to conform to the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (OSHA / GHS); SOR/88-66, the Canadian Controlled Products Regulations (CPR); and/or NOM-002-SCT-2003 (Mexico). However, vegetable oil (in mist form) is known to be listed as an OSHA 29 CFR 1910.1000 Air Contaminant. Occupational exposure limits are subsequently provided in section 8 of this SDS.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name Chemical Family Scientific Boiled Linseed Oil Oil

Non-hazardous Components

| Chemical Name | CAS-No | Weight % | North American Hazard Indicator |
|------------------------------------|------------|----------|---------------------------------|
| Linseed oil, cobalt manganese salt | 68553-15-1 | 99-100 | None known |

4. FIRST AID MEASURES

Description of first aid measures

General Advice When symptoms persist or in all cases of doubt seek medical advice.

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids.

Skin Contact Wash off with warm water and soap.

Inhalation Move to fresh air in case of accidental inhalation of vapours or decomposition products.

Ingestion Not for human consumption. Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and affects, both acute and delayed

Eyes Contact with eyes may cause mild irritation.

Skin Prolonged or excessive contact with skin may result in mild irritation, however, significant health injuries are not expected under normal use.

Inhalation Refer to section 8 of this sheet for exposure limits. Excessive inhalation of mist may result in respiratory irritation. **Ingestion** Oral exposure is not anticipated under normal working conditions. May be harmful if swallowed.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties

Material may pose fire hazard because it is dispersed (or spread) by water.

Extinguishing media

Suitable Extinguishing Media Dry chemical. Dry chemical powder. Carbon dioxide (CO₂). Foam. Sand. Fog. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

Special hazards arising from the substance or mixture

| Hazardous Combustion Products | Thermal decomposition can lead to release of irritating gases and vapors, Carbon |
|-----------------------------------|---|
| | monoxide (CO), Carbon dioxide (CO2), Acrolein. |
| Specific Hazards Arising from the | Risk of ignition. Rags and other materials containing this product may heat and |
| Chemical | spontaneously ignite, if exposed to air. Store wiping rags and similar materials in metal |
| | cans with tightly fitting lids. Cool closed containers exposed to fire with water spray. |
| Sensitivity to mechanical impact | No information available. |
| Sensitivity to static discharge | No information available. |

Advice for fire-fighters

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.

NFPA

Health 1 Flammability 1 Stability and Reactivity 0 Physical hazard None known



6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment. Remove all sources of ignition. Avoid high pressure washing or generation of aerosols. Material can create slippery conditions.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not allow product to reach soil, sewage system or any water course. **Methods for Clean-up**

Dam up. Soak up with inert absorbent material. Use dry spill kit material or sand, collect in appropriate containers. For disposal information see section 13. Clean contaminated surface thoroughly.

Other Information

Oil soaked materials may spontaneously combust

7. HANDLING AND STORAGE

Handling

Ensure adequate ventilation. Do not use pressure to empty drums. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Keep in a cool sheltered place. To maintain product quality, do not store in heat or direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

As an airborne mist containing vegetable oil, exposure limits pertaining to "vegetable oil mist" have been provided below

| Chemical Name | ACGIH TLV | OSHA PEL | MEXICO | NIOSH |
|---------------------------------------|-----------------|--|---|--|
| Linseed oil, cobalt manganese salt | | Ceiling: 5 mg/m ³ Mn | | IDLH: 500 mg/m ³ STEL: 3 mg/m ³ Mn TWA: 1 mg/m ³ Mn |
| vegetable oil mist | TVL: 10 mg/m(3) | TWA: 5 mg/m³ mist, respirable fraction TWA: 15 mg/m³ mist, total | TWA: 10 mg/m ³ except irritant oils | TWA: 10 mg/m ³ total mist TWA: 5 mg/m ³ respirable mist |

| Engineering Measures General Hygiene Considerations | Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits. However it is the duty of the user to verify this and follow given exposure limits at the workplace. Ensure that eyewash stations and safety showers are close to the workstation location. Handle in accordance with good industrial hygiene and safety practice. |
|--|--|
| Personal Protective Equipment | |
| Eye/face Protection. | If exposed to airborne mist, or if splashing is possible, appropriate safety glasses with side-shields or safety goggles are recommended. |
| Skin and Body Protection | Oil resistant gloves are recommended. Appropriate body protection should be selected based on activity and possible exposure. Also take into consideration the specific local conditions under which the product is used. |
| Respiratory Protection | In case of mist, spray or aerosol exposure wear suitable personal respiratory protection. |
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9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | Clear Amber |
|----------------|------------------|
| Physical State | Liquid |
| Odor | Characteristic |
| Odor Threshold | Not applicable |
| pH | Not applicable |
| Flash Point | > 99 °C / 210 °F |

| Autoignition Temperature | 344 °C / 651 °F |
|--|--|
| Boiling point | No information available |
| Melting/Freezing Point | No information available |
| Decomposition temperature | No information available |
| Oxidizing Properties | Not expected to be oxidising |
| Water Solubility Solubility(ies) Evaporation Rate Vapor Pressure Vapor Density Specific Gravity / Relative Density Viscosity Partition Coefficient (n-octanol/water) | Insoluble Soluble in many organic solvents Nonvolatile No information available Nonvolatile 0.93 @ 25°C / 77°F A (Gardner-Holdt Scale) No information available |

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

Conditions to Avoid Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Materials No materials to be especially mentioned.

Hazardous Decomposition Products Thermal decomposition leads to formation of acrolein, Carbon monoxide (CO), Carbon dioxide (CO₂), Smoke, Fumes.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

| Acute toxicity | Based on available data, no evidence of acute toxicity. |
|-----------------------------------|--|
| Skin corrosion/irritation | Based on available data, not, or only slightly irritating. |
| Serious eye damage/eye irritation | Based on available data, no evidence of serious eye damage / irritation. |
| Respiratory or skin sensitisation | Based on available data, not expected to be a skin or respiratory sensitiser. |
| Germ cell mutagenicity | Based on available data, the classification criteria are not met. |
| Carcinogenicity | Based on available data, the classification criteria are not met. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen. |
| Reproductive toxicity | Based on available data, no evidence of reproductive toxicity |
| STOT - single exposure | Based on available data, the classification criteria are not met. |
| STOT - repeated exposure | Based on available data, the classification criteria are not met. |
| Aspiration hazard | Based on available data, no known aspiration hazard. |

Potential health effects

| Eyes | Contact with eyes may cause mild irritation. |
|------------|---|
| Skin | Prolonged or excessive contact with skin may result in mild irritation, however, significant health injuries are not expected under normal use. |
| Inhalation | Refer to section 8 of this sheet for exposure limits. Excessive inhalation of mist may result in respiratory irritation. |
| Ingestion | Oral exposure is not anticipated under normal working conditions. May be harmful if swallowed. |

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not classified for aquatic toxicity.

| · · · · · · · · · · · · · · · · · · · | No information available. The product is insoluble and floats on water. |
|---------------------------------------|--|
|---------------------------------------|--|

13. DISPOSAL CONSIDERATIONS

Whenever possible, as rules and regulations allow, please recycle or manage materials to minimize waste.

| | Dispose of in compliance with the laws and regulations pertaining to this product in your jurisdiction. Oil soaked materials may spontaneously combust and should be properly managed to avoid ignition and heat sources or oxygen rich environments. Collect and store |
|------------------------|---|
| Contaminated Packaging | soaked materials in closed, metal containers to help prevent combustion. Empty containers should be decontaminated and taken for local recycling, recovery or waste disposal. |

14. TRANSPORT INFORMATION

Domestic transport regulations (USA)

DOT Not regulated

Domestic transport regulations (Canada)

TDG Not regulated

Domestic transport regulations (Mexico)

MEX Not regulated

International transport regulations

ICAO Not regulated IATA Not regulated IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

The components of this product are reported in the following inventories:

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | AICS | ENCS ISHL | CHINA | PICCS | KECL | NZIoC |
|---------------------------------------|------|-----|------|----------------|--------|------|--------------|-------|-------|----------------|-------|
| Linseed oil, cobalt manganese salt | Yes | No | Yes | Yes Present | No | Yes | No | No | No | Yes Present | Yes |

USA

Federal Regulations

Ozone Depleting Substances:

No Class I or Class II material is known to be used in the manufacture of, or contained in, this product.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain chemicals at levels which are subject to the reporting requirements of the Act or regulations contained in 40 CFR 372. **CERCLA/SARA 103-302**

Sections 103-302 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (CERCLA/SARA). This product is not known to contain chemicals at levels which are expected to be subject to the reporting requirements of the Act or regulations contained in 40 CFR 103-302

| SARA 311/312 Hazardous Categorization | |
|---------------------------------------|--|
| Acute Health Hazard | |
| Chronic Health Hazard | |
| Fire Hazard | |
| Sudden Release of Pressure Hazard | |

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 63) May contain trace HAPs.

State Regulations

California Proposition 65

Reactive Hazard

This product is not known to contain chemicals listed under Proposition 65.

State Right-to-Know

This product may contain one or more ingredient(s) which are subject to state right to know laws. Please contact your sales representative for ingredient details if needed.

No No No

No

No

Canada

 WHMIS Product Classification

 Not a WHMIS controlled product.

 WHMIS Ingredient Disclosure List IDL

 No known component is listed on the WHMIS ingredients disclosure list at reportable levels.

 (NPRI) Canadian National Pollutant Release Inventory

 The product is known to contain trace levels of part 1, group 1 substances.

 This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

Mexico

Mexico - Grade

Slight risk, Grade 1

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16. OTHER INFORMATION

| | 16. OTHER INFORMATION | | | | | |
|---|---|--|--|--|--|--|
| Prepared By: | ADM Oils | | | | | |
| Original Preparation Date: | 04-Jan-2010 | | | | | |
| Revision Date: | 12-Feb-2014 | | | | | |
| Revision Number: | 2 | | | | | |
| Reason for revision: | This data sheet contains changes from the previous version in section(s) 15. This version replaces all previous versions. | | | | | |
| Abbreviations and acronyms | | | | | | |
| | f Governmental Industrial Hygienists Threshold Limit Values | | | | | |
| AICS - Australian Inventory of Chemic | cal Substances (Australia) | | | | | |
| CAS - Chemical Abstract Service | | | | | | |
| CHINA - Chinese Inventory of Existing Chemical Substances (China) | | | | | | |
| DOT - U.S. Department of Transporta | | | | | | |
| DSL - Domestic Substance List (Cana | | | | | | |
| | ting Commercial Chemical Substances (EU) | | | | | |
| ELINCS - European List of Notified Cl | | | | | | |
| ENCS - Existing and New Chemical Substances (Japan) / ISHL - Industrial Health and Safety Law (Japan) | | | | | | |
| GHS - Globally Harmonized System of Classification and Labelling of Chemicals IATA - International Air Transport Association Dangerous Goods Regulations | | | | | | |
| | ociation Dangerous Goods Regulations | | | | | |
| ICL - In Commerce List (Canada) IMDG - International Maritime Danger | iaus Goode Cada | | | | | |
| IMO - International Maritime Organiza | | | | | | |
| | | | | | | |
| KECL - Korean Existing and Evaluated Chemical Substances (Korea) LC50 - Lethal concentration that produces fatalities in 50% of a given test population | | | | | | |
| LD50 - Median lethal dose of a given test population | | | | | | |
| MEX - NOM-002-SCT/2003 List of Hazardous Substances and Materials Most Commonly Transported | | | | | | |
| MEXICO - Mexico Occupational Expo | | | | | | |
| NDSL - Non Domestic Substances Lis | | | | | | |
| NFPA - National Fire Protection Asso | | | | | | |
| NIOSH - National Institute of Occupat | ional Safety and Health | | | | | |
| NZIoC - New Zealand Inventory of Ch | | | | | | |
| OSHA - Occupational Safety & Health | Administration | | | | | |
| OSHA PEL - Occupational Safety and | I Health Administration Permissible Exposure Limits | | | | | |
| PICCS - Inventory of Chemicals and (| | | | | | |
| STOT - Specific Target Organ Toxicity | | | | | | |
| TDG - Transportation of Dangerous G | | | | | | |
| TSCA - Toxic Substances Control Act, Section 8(b) Inventory (USA) | | | | | | |
| TWA - Time Weighted Average: Average concentration that should not be exceeded during a work day (usually 8-hours) | | | | | | |
| WHMIS - Workplace Hazardous Mate | rials Information System | | | | | |
| publication. The information given | I)SDS is correct to the best of our knowledge, information and belief at the date of its is designed only as a guide for safe handling, use, processing, storage, e and is not to be considered as a warranty or quality specification. The information | | | | | |

transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

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