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SAFETY DATA SHEET

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Molasses Blends

- 1.1 **Substance Name:** Molasses Blends.
- 1.2 **Trade Name / Synonym(s):** Molasses blends under various product names.
- 1.3 **Description:** Dark sticky liquid treacle like
- 1.4 **Intended / Possible Use(s):** Animal feedstuffs
- 1.5 **Company Identification:** E D & F Man Molasses & Liquid Products
- 1.6 **Address:**
De Ruyterkade 6 - 6th Floor
1013 AA Amsterdam
The Netherlands
- 1.7 **Telephone:** +31 (0)20-7540111
- 1.8 **Telephone In Emergency:** +31 (0)20-7540111
- 1.9 **Fax:** +31 (0)20-7540122
- 1.10 **E-mail:** MLP-HSE@edfman.com
- 1.11 **Container:** 1 MT (IBC) or 30 MTs (Road Truck).

2.1 Chemical Characterization:

Animal feedstuff containing cane or beet molasses and other ingredients (whey, urea, glycerine CMS/vinasses) and/or additives (vitamins and flavours).

- 2.2 **CAS Number:** 68476-78-8
 - 2.3 **EINECS Number:** 270-698-1
 - 2.4 **EC Index Number:** 270-698-1
- Document No: Form 326
Revision: 2
Revision date: 21-DEC-10

HMIS Classification: NFPA Classification:

PERSONAL PROTECTION C

- 3.1 **General:** According to experience product is considered to be harmless to health.
- 3.2 **Eye Hazard:** Mild irritant.
- 3.3 **Skin Hazard:** No hazards known.

3.4 Inhalation Hazard:

Insufficient oxygen may be present in vessels containing the product due to the generation of carbon monoxide during fermentation.

3.5 Ingestion Hazard: No data.

3.6 Fire Hazard:

4.1 General: No specific general statements needed.

4.2 Eyes: Flush eyes for at least 15 minutes with clean water.

4.3 Skin: Wash with soap and water. Remove contaminated clothing.

4.4 Inhalation: No particular ventilation requirements

4.5 Ingestion: No data.

5.1 General:

Fermentation can yield carbon dioxide with possible traces of ethanol or volatile fatty acids (e.g. acetic, propionic, lactic, or butyric) and if exposed to a spark or flame may result in an explosion. These conditions should be avoided.

Decomposition products released in a fire should be considered as harmful.

5.2 Small Fires: Water, carbon dioxide, foam or chemical powder can be used as a suitable Extinguishing media.

5.3 Large Fires: Wear self contained breathing apparatus in case of large fires.

6.1 General: All accidental discharges to a public or port water to be reported to local environmental authorities, as applicable.

6.2 Small Spills:

- Stop the source of the spill.
- Recover as much product as possible for reuse.
- Absorb remaining spill and dispose solids in waste container.

6.3 Large Spills:

- Stop the source of the spill.
- Create diversionary structures to minimize the extent of the release.
- Prevent the release from entering a waterway or sewer.
- Recover useable product.
- Absorb remaining spill and dispose of at an approved facility such as a municipal landfill or land application site in accordance with local procedures.

6.4 PPE To Be Worn: Always wear appropriate PPE as specified.

7.1 General:

If maintenance of tank requires entry by personnel, Confined Space Entry standards and procedures shall be observed and atmosphere testing must be performed prior to tank entry and thereafter daily.

If welding is to be performed, the tank should be gas free (LEL < 10%) and only certified welders shall perform welding operations.

7.2 Handling:

The following PPE is advised:

SKIN: Rubber gloves.

EYES: Safety glasses.

INHALATION: No respiratory protection required provided adequate ventilation is present to prevent accumulation of vapours.

7.3 Storage:

- Molasses should be stored in a well-ventilated aboveground storage tank designed to contain material with a specific gravity of 1200 kg/m³ or greater.

- Material can ferment if excessive moisture contamination is allowed.

8.1 General:

OTHER: Good general ventilation

OTHER: No hazards anticipated in normal use.

OTHER: Store below 50 deg C.

OTHER: Wear appropriate protective clothing and gloves.

RECOMMENDED PPE TO BE WORN:

Gloves Eye Protection Overall

9.1 Molecular Formula:

9.2 Molecular Weight: N/A

9.3 Viscosity: 12000-13000 cps at 20°C

9.4 Decomposition Products: N/A

9.5 Specific Gravity: 1.25 - 1.4

9.6 Refractive Index: N/A

9.7 Pour Point: N/A

9.8 Melting Point / Range (°C): N/A

9.9 Boiling Point / Range (°C): N/A

9.10 Vapour Pressure N/A

9.11 Relative Evaporation Rate: N/A

9.12 Saturation Level: N/A

9.13 Flash Point (°C): 200 °C.

9.14 Auto-Ignition Temperature (°C): N/A

9.15 Ignition Temperature Of Dust (°C): N/A

9.16 Explosive Limits: N/A

9.17 Solubility: Miscible

9.18 Decomposition Temperature (°C): > 45 °C

9.19 Hydroscopic: No

9.20 pH Range or Value: 2 - 6

9.21 Additional Properties: Dark brown to black syrupy liquid with a sweet odour.

10.1 Chemical Stability:

- Product is stable if heated as prescribed.

- Ferments when diluted with water: If diluted below 50% fermentation may occur with large expansion in volume (addition of propionic acid to decrease pH to <4.5 will prevent fermentation).

10.2 Conditions To Avoid:

- Excess moisture or heat and storage of product in unventilated storage tanks or containers.

- Reacts with concentrated nitric acid or concentrated sulphuric acid.

10.3 Hazardous Decomposition Products: Carbon monoxide, alcohol or fatty acid vapors.

10.4 Hazardous Polymerization: Will not occur.

11.1 Acute Toxicity:

No acute toxicological data is available.

LD50 rat (oral): N/A.

LD50 rat (i.v.) : N/A.

11.2 Dermal Compatibility: N/A.

11.3 Other Information:

The product is used as a feed or food ingredient and experience is considered to be non hazardous. May cause sensitisation by prolonged skin contact. No other toxicological data is available.

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12.1 General:

Prevent releases to land or water. Results in high Biological Oxygen Demand (BOD) and potential oxygen depletion of aquatic systems.

13.1 General:

Dispose of waste material at an approved facility (such as approved municipal landfill, land application site, licensed waste contractor or incineration), as applicable, in compliance with local environmental standards and regulations.

14.1 General:

CHIP: Not considered hazardous

CHIP: Not marked as a marine pollutant.

This product is NOT a DOT Hazardous Material. Also in accordance with the Chemicals Hazard Information and Packaging for Supply Regulations (CHIP 97) the product is not classified.

Sea Transport: New Marpol Annex II classification

Product name : Molasses, Chapter 18, Pollution Category: OS.

15.1 CHIP:

CHIP: Not considered hazardous

CHIP: Product is manufactured in accordance with feedstuff regulations

15.2 Other:

16.1 General: None.

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