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Totally Natural Solutions® hop aromas & flavours to inspire

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE, PREPARATION AND COMPANY.

1.1 Product Name – This safety data sheet covers the following products:

All HopZero® Products

- **1.2 Relevant Uses –** As a flavouring for foods and beverages. Not for direct consumption as an undiluted product.
- **1.3 Supplier Totally Natural Solutions Ltd.**
- 1.4 Emergency Contact Details -

Unit 2 Eastlands Estate, Maidstone Road, Paddock Wood, Kent, TN12 6BU, UK.

Emergency phone: +44 (0) 1622 872 105 (08.30

- 17.00 Mon - Fri UK time)

Mobile: +44 (0) 7766 201593

Email: info@totallynaturalsolutions.com

SECTION 2: HAZARDS IDENTIFICATION.

- **2.1 Classification –** Not classified (Regulation (EC) No. 1272/2008)
- 2.2 Label Elements N/A (not classified)
- 2.3 Other Hazards None

SECTION 3: COMPONENTS/INFORMATION ON INGREDIENTS.

Contains flavouring components in a carrier of Monopropylene Glycol or aqueous Monopropylene Glycol.

Monopropylene Glycol USP (propan 1,2-diol)

Concentration of the component in the product: 45 - 99.90%

CAS number: 57-55-6

EINECS number: 200-338-0

Monopropylene Glycol has a workplace exposure limit assigned. It is non-hazardous when used as directed.

It is registered as a food additive in the European Union as E 1520.

SECTION 4: FIRST AID MEASURES.

4.1 Description of First Aid Measures –<u>Inhalation</u>: Move the exposed person to fresh air at once. Rinse nose and mouth with water.
Obtain medical attention if discomfort continues.

<u>Skin Contact</u>: Wash skin thoroughly with soap and water.

Eye Contact: Wash eye with plenty of water. Obtain medical attention if symptoms persist.

<u>Oral Ingestion</u>: Rinse mouth thoroughly provided person is conscious. Obtain medical attention if discomfort continues.

- **4.2 Most Important Symptoms and Effects -** No data available. See Section 11.
- **4.3 Indication of Immediate Medical Attention or Special Treatment -** No data available.

SECTION 5: FIRE-FIGHTING MEASURES.

- **5.1 Extinguishing Media –** Carbon dioxide, water spray, dry powder and alcohol resistant foam.
- **5.2 Special Hazards Arising from Substance**
- Monopropylene Glycol will give rise to toxic fumes in a fire.
- **5.3 Advice for Firefighters –** Fire fighters should wear self-contained positive pressure breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal Protection – Wear appropriate protective clothing – see Section 8.

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6.2 Environmental Precautions - Do not discharge onto the ground or into watercourses.

6.3 Methods for Cleaning Up - Contain spillage using earth, sand or other inert material. Transfer to suitable sealed container prior to disposal. Wash spillage site with water. Do not contaminate water sources or sewer.

SECTION 7: HANDLING AND STORAGE.

- 7.1 Precautions for Safe Handling Avoid spilling, skin and eye contact.
- 7.2 Conditions for Safe Storage Keep container closed when not in use. Keep away from heat and sources of ignition. Suitable storage is high-grade stainless steel, glass, aluminium or lacquered steel drums. Store at 0-20 °C (32-68 °F).
- 7.3 Specific End Uses This product is manufactured for use as a food ingredient and for such uses it is not subject to registration via REACH (Regulation (EC) No.1907/2006). It should be used in accordance with applicable food legislation.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control Parameters - Components of the preparation for which there are workplace limits:

Monopropylene Glycol – UK: Long term exposure limit, measured as an 8-hour time weighted average (TWA) (refs.1,3): 150 ppm (474 mg/m³) for total vapour and particulates; 10 mg/m³ for particulates.

The concentration of Monopropylene Glycol in the product is 45 - 99.90% w/w as indicated in Section 3.

8.2 Exposure Controls -

Engineering Controls: Provide adequate ventilation. Observe the workplace exposure limits and minimize the risk of inhalation of vapours.

Eye/Face Protection: If danger of splashing wear safety glasses or goggles.

Hand Protection: Suitable protective gloves if risk of skin contact.

Skin Protection: If danger of splashing wear PVC or rubber apron.

Respiratory Protection: Not normally required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

Appearance:	Clear liquid to pale yellow
Odour:	Characteristic, depending on product
Odour Threshold:	No data available
pH:	No data available
Freezing point:	No data available
Boiling point:	>150°C (302 °F)
Flash Point:	>90 °C (194 °F)
Evaporation Rate:	No data available
Flammability:	LEL 2.6%, UEL 12.5%
^v Flammability:	No data available
Vapour Pressure:	<10 mbar at 20 °C
Vapour Density:	No data available
Density:	1.010 – 1.060 kg.m ⁻³
Solubility in H ₂ O:	Soluble
Auto ignition Temperature:	No data available

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Partition Coefficient:	No data available
Decomposition Temperature:	No data available
Viscosity at 20°C:	No data available
Explosive properties:	Data for Monopropylene Glycol: Heat or flame may cause explosions
Oxidising properties:	No data available

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity – No reactivity hazards known.

10.2 Stability – Stable if stored in accordance with 7.2 and 10.5.

10.3 Possibility of Hazardous Reactions – None known.

10.4 Conditions to Avoid – Avoid excessive heat for prolonged periods of time.

10.5 Incompatible Materials – Strong oxidizing substances. Strong Acids. Strong bases.

10.6 Hazardous Decomposition Products – Fire creates carbon monoxide (CO) and carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION.

Acute Toxicity – Not known. The product contains Monopropylene Glycol at 45 – 99.90% w/w as indicated in Section 3. This is registered as a food additive in the EU as E 1520.

Toxicological data for Monopropylene Glycol: LD₅₀ oral rat, mouse 20, 22g kg⁻¹, respectively.

Monopropylene Glycol may cause local irritation of skin and mucous membranes. Spray and vapour in the eyes may cause irritation and smarting.

Skin Corrosion/Irritation – No data available.

<u>Serious Eye Damage/Irritation</u> – No data available.

<u>Respiratory or Skin Sensitisation</u> – No data available.

Germ Cell Mutagenicity – No data available.

<u>Carcinogenicity</u> – No data available.

Reproductive Toxicity - No data available.

<u>STOT</u> – Single Exposure – No data available.

<u>STOT</u> – Repeated Exposure – No data available.

<u>Aspiration Hazard</u> – Not hazardous.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity – No data available.

This product contains Monopropylene Glycol as 45-99.90% w/w as indicated in Section 3. Monopropylene Glycol is not regarded as dangerous for the environment. Data for Monopropylene Glycol: LC₅₀ (24 hr) goldfish >5000 mg I⁻¹; EC₅₀ (24 and 48 hr) *Daphnia magna* >10 g L⁻¹.

<u>Persistence and Degradability</u> – No data available. Monopropylene glycol is biodegradable.

<u>Bioaccumulative Potential</u> - No data available. The bioconcentration of Monopropylene Glycol has been estimated as <1.

Mobility in Soil – No data available. Miscible in water

Results of PBT and vPvB Assessment - No data available.

Other Adverse Effects – No data available.

SECTION 13: DISPOSAL CONSIDERATIONS.

Product Disposal - Dispose in accordance with all applicable local and national regulations.

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Container Disposal – Labels should not be removed from containers until they have been cleaned. Contaminated containers should not be treated as household waste. Containers should be cleaned using appropriate methods and then re-used or disposed of by landfill or incinerated as appropriate.

SECTION 14: TRANSPORT INFORMATION.

UN-Number – Non-hazardous for transport.

Class – Non-hazardous for transport.

Shipping Name - N/A

Packing Group – Non-hazardous for transport.

Marine Pollutant - No data available.

SECTION 15: REGULATORY INFORMATION.

15.1 Safety, Health and Environmental Regulations – Not classified (Regulation (EC) No. 1272/2008).

The substance is a food ingredient and is therefore not subject to registration via REACH (Regulation (EC) No. 1907/2006).

15.2 Chemical Safety Assessment - No data available.

SECTION 16: OTHER INFORMATION.

The information in this safety data sheet is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on our present knowledge at the time of publication and is given in good faith. We do not accept any liability for loss, injury or damage that may result from its use.

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