



CHEMSYNTH CORPORATION

(Exporter of chemical Raw materials)

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MATERIAL SAFETY DATA SHEET

HOMOSALATE

1. IDENTIFICATION

Product Description: (HOMOSALATE, USP)

CAS # 118-56-9

2. HAZARD(S) IDENTIFICATION

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

Label elements Hazard symbol None.

Signal word None. Hazard statement

The substance does not meet the criteria for classification. Precautionary statement Prevention Observe good industrial hygiene practices. Response Wash hands after handling. Storage Store away from incompatible materials. Disposal Dispose of waste and residues in accordance with local authority requirements. Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances Chemical name

Common name and synonyms

CAS number % homosalate (3, 3, 5- trimethyl cyclohexyl) 2- hydroxy benzoate 3,3,5-TRIMETHYL-CYCLOHEXYL 118-56-9 100 SALICYLATE 502704

4. FIRST-AID MEASURES

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist. Inhalation Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for

several minutes. Skin contact Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids. Eye contact Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Ingestion Most important Direct contact with eyes may cause temporary irritation. symptoms/effects, acute and delayed Indication of immediate medical Not available. attention and special treatment needed Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. General information

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Water spray, fog, CO₂, dry chemical, or alcohol resistant foam. Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire. Specific hazards arising from Fire may produce irritating, corrosive and/or toxic gases. the chemical Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires. Special protective equipment and precautions for firefighters In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control. Fire fighting equipment/instructions Specific methods Use water spray to cool unopened containers. General fire hazards Static charges generated by emptying package in or near flammable vapor may cause flash fire.

6. ACCIDENTAL RELEASE MEASURES

Keep unnecessary personnel away. Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Personal precautions, protective equipment and emergency procedures Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. The product is immiscible with water and will spread on the water surface. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Prevent product from entering drains. Do not allow material to contaminate ground water system. Absorb in vermiculite, dry sand or earth and place into containers. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Collect and dispose of spillage as indicated in section 13 of the SDS. Methods and materials for containment and

cleaning up Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid release to the environment. Retain and dispose of contaminated wash water. Contact local authorities in case of spillage to drain/aquatic environment. Environmental precautions

7. HANDLING AND STORAGE

Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling. Precautions for safe handling Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Conditions for safe storage, including any incompatibilities

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits No exposure limits noted for ingredient(s). Biological limit values No biological exposure limits noted for the ingredient(s). Appropriate engineering controls Use explosion-proof ventilation equipment to stay below exposure limits. Individual protection measures, such as personal protective equipment Eye/face protection Wear safety glasses with side shields (or goggles). Skin protection Hand protection Chemical resistant gloves. Other Not available. Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory protection Thermal hazards Wear appropriate thermal protective clothing, when necessary. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. General hygiene considerations

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance Refer to Spec Sheet

Physical state Liquid.

Form Liquid.

Color Refer to Spec Sheet Odor Characteristic.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range 321.8 - 327.2 °F (161 - 164 °C) at 4.00 mmHg Flash point > 200.0 °F (> 93.3 °C) Closed Cup Evaporation rate Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available. Other information Explosive properties Not explosive.

Flammability class Combustible IIIB estimated

Molecular formula C₁₆H₂₂O₃

Molecular weight 262.34 g/mol Oxidizing properties Not oxidizing.

Specific gravity 1.05 at 25 °C

10 STABILITY AND REACTIVITY

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport. Chemical stability Material is stable under normal conditions. Possibility of hazardous No dangerous reaction known under conditions of normal use. reactions Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials. Incompatible materials Alkaline metals. Hazardous decomposition No hazardous decomposition products if stored and handled as indicated. Products

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure Inhalation No adverse effects due to inhalation are expected. Skin contact Causes mild skin irritation. Eye contact Causes mild eye irritation. Ingestion Expected to be a low ingestion hazard. Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation. Information on toxicological effects Acute toxicity Product Species Test Results 3,3,5-TRIMETHYL-CYCLOHEXYL SALICYLATE (CAS 118-56-9) LD50 Rabbit Dermal Acute > 5000 mg/kg LD50 Rat Oral > 8000 mg/kg * Estimates for product may be based on additional component data not shown. Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. Serious eye damage/eye Direct contact with eyes may cause temporary irritation. irritation Respiratory or skin sensitization Respiratory sensitization Not a respiratory sensitizer. Skin sensitization This product is not expected to cause skin sensitization. No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Germ cell mutagenicity Carcinogenicity 502704 NEO HELIOPAN® HMS (HOMOSALATE, USP) SAFETY DATA SHEET Version # 02 Revision Date: 08-02-2016 Print Date: 08-02-2016 Page 6 of 9 IARC Monographs. Overall Evaluation of Carcinogenicity Not listed. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not regulated. US. National Toxicology Program (NTP) Report on Carcinogens Not listed. US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not available. Reproductive toxicity This product is not expected to cause reproductive or developmental effects. Specific target organ toxicity - single exposure Not classified. Specific target organ toxicity - repeated exposure Not classified. Aspiration hazard Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Ecotoxicity Elimination information (persistence and degradability) Biodegradability: Manometric Respirometry Test Result: Not readily biodegradable 21% Persistence and degradability Bioaccumulative potential No data available. Mobility in soil No data available. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. Disposal instructions Local disposal regulations Dispose in accordance with all applicable regulations. Hazardous waste code Not established. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Waste from residues / unused products Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Contaminated packaging

14. TRANSPORT INFORMATION

ADN Not regulated as dangerous goods. 502704 ADR Not regulated as dangerous goods. RID Not regulated as dangerous goods. DOT Not regulated as dangerous goods. BULK DOT Not regulated as dangerous goods. NON-BULK IATA Not regulated as dangerous goods. IMDG Not regulated as dangerous goods.

15. REGULATORY INFORMATION

US federal regulations CERCLA Hazardous Substance List (40 CFR 302.4) Not listed. SARA 304 Emergency release notification Not regulated. US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not available. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not regulated. TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated. Superfund Amendments and Reauthorization Act of 1986 (SARA) Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Hazard categories SARA 302 Extremely hazardous substance Not listed. Substances List (NDSL) No China Inventory of Existing Chemical Substances in China (IECSC) Yes Europe European Inventory of Existing Commercial Chemical Substances (EINECS) Europe European List of Notified Chemical Substances (ELINCS) No Japan Inventory of Existing and New Chemical Substances (ENCS) Yes Korea Existing Chemicals List (ECL) No New Zealand New Zealand Inventory Yes Philippines Philippine Inventory of Chemicals and Chemical Substances Yes (PICCS) United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes *A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. OTHER INFORMATION

1 Flammability: 1 Physical hazard: 0 HMIS® ratings Vigon International, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe

conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, disposal, and should not be considered as a guarantee or quality specification. The above information is based on data provided by and collected from recognized sources such as distributors, manufacturers, and technical groups and is considered to be accurate to the best of Vigon's knowledge as of the date of this document. It is the responsibility of the user to review all safety information about this product and determine its safety and suitability in their own processes and operations. Appropriate warnings and safe handling procedures should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors relating to such use in accordance with all applicable laws and regulations. Disclaimer Revision information This document has undergone significant changes and should be reviewed in its entirety.