Zinc Oxide Dispersion, Liquid

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules and Regulation

Revision Date: 27-May-2021
Supersedes: 05-May-2020

1 PRODUCT & COMPANY IDENTIFICATION

Product Name: Zinc Oxide Dispersion, Liquid
Synonyms: No data available
INCI Name: Zinc oxide, C13-15 alkane, polyglyceryl-3 polyricinoleate, sorbitan isostearate, triethoxycaprylylsilane
CAS Number: 1314-13-2, 3891-98-3, 29894-35-7, 71902-01-7, 2943-75-1
Formula: No data available
Product Form: Liquid
Product Use: Cosmetic use

Distributor: MakingCosmetics Inc.
Address: 10800 231st Way NE
Redmond, WA 98053 (USA)

Phone / Fax: 425-292-9502 / 425-292-9601
Web: **www.makingcosmetics.com**

Emergency Telephone Number: 1-800-424-9300 (Chemtrec)

2 HAZARDS IDENTIFICATION

GHS Classification: Hazardous to the Aquatic Environment, Acute Hazard - Category 1
Hazardous to the Aquatic Environment, Long-Term Hazard - Category 1

Signal Word: **WARNING**

GHS Hazard Pictograms:

GHS Hazard Statements: H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

GHS Precautionary Statements: P273: Avoid release to the environment.
P391: Collect spillage.
P501: Dispose of contents/container to location in accordance with local/regional/national/international regulations.

Potential Health Hazards: Eyes: May be eye irritant.
Inhalation: May be respiratory irritant.
Skin: May be skin irritant.
Ingestion: May be gastrointestinal irritant.

NFPA Ratings (704):

Health	1	Slight
Flammability	0	Minimal
Reactivity	0	Minimal
Specific Hazard	N/A	

3 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Weight %	Molecular Weight
C13-15 Alkane	3891-98-3	9-16%	Not Available
Zinc Oxide	1314-13-2	70-78%	Not Available
Triethoxycaprylylsilane	2943-75-1	3-8%	Not Available
Polyglyceryl-3 polyricinoleate	68936-89-0	2-6%	Not Available
Sorbitan Isostearate	71902-01-7	2-6%	Not Available

4 FIRST AID MEASURES

Immediate Medical Attention Needed: Yes
Indication of Immediate Medical Attention & Special Treatment Needed, if Necessary: Treat symptomatically and supportively. If accidental exposure occurs to an individual who is also taking one or more

concomitant medications, consult the respective package or prescribing information for potential drug interactions.

Eyes: If easy to do, remove contact lenses, if worn. Immediately flush eyes with copious quantities of water for at least 15 minutes. If irritation occurs or persists, notify medical personnel and supervisor.

Inhalation: Immediately move exposed subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, administer oxygen. Immediately notify medical personnel and supervisor.

Skin: Wash exposed area with soap and water and remove contaminated clothing/shoes. If irritation occurs or persists, notify medical personnel and supervisor.

Ingestion: If swallowed, call a physician immediately. Do Not Induce Vomiting unless directed by medical personnel. Do not give anything to drink unless directed by medical personnel. Never give anything by mouth to an unconscious person. Notify medical personnel and supervisor.

5 FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: May be combustible at high temperature. Use appropriate media (water spray (fog), foam, dry powder, or carbon dioxide) for adjacent fire. Do not use direct water jet.

Special protective equipment & precautions for firefighters: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Decontaminate all equipment after use.

Flash Points: No data available

Specific hazards arising from the chemical: May emit toxic fumes of carbon monoxides and carbon dioxide. See also Stability and Reactivity section.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment & emergency procedures: Area should be adequately ventilated. Do not try to clean up the leak without proper protective equipment. See section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Do not empty into drains. Avoid release to the environment. Contact the National Response Center in case of accidental discharge to waterways.

Methods and material for containment and cleaning up: For small spills (such as in a laboratory), soak up material with absorbent, e.g., damp paper towel, and wash spill area thoroughly with soap and water. For large spills in manufacturing, absorb liquid with an appropriate adsorbent. Do not raise dust. Eliminate ignition sources. Use only equipment suitable for disposal. Dispose of material in a manner that is compliant with federal, state, and local laws.

7 HANDLING & STORAGE

Precautions for safe handling: Avoid contact with eyes, skin, and other mucous membranes. Wash thoroughly after handling. Use personal protective equipment. Avoid breathing vapor. Do not eat, drink, or smoke while handling this product. Avoid prolonged or repeated exposure. Provide sufficient air exchange and/or exhaust in workrooms. Use normal preventative fire measures. See section 8 for recommendations on the use of personal protective equipment. Keep container closed when not in use.

Conditions for safe storage, incl. any incompatibilities: Keep container tightly closed. Store in cool, dry well-ventilated area away from any ignition source. To maintain product quality, do not store in heat or direct sunlight. Keep away from heat and incompatible materials (see section 10 for incompatibilities).

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	Exposure Limits	Basis	Entity
Zinc Oxide	2 mg/m^3	TWA	ACGIH

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection:

Eyes: Wear safety glasses with side shields, chemical splash goggles, or full-face shield, if necessary. Base the choice of

protection on the job activity and potential for contact with eyes or face. An emergency eye wash should be available.

Inhalation: Provide ventilation. Use local exhaust and/or enclosure at mist/aerosol/spray-generating points. High-energy operations such as spraying should be done within an approved emission control or containment system. If adequate ventilation is unavailable, use a NIOSH approved N95 or P95 dust mask or an approved and properly fitted air-purifying respirator with organic vapor cartridge based on an assessment of risk and exposure level. Choice of respiratory protection should be appropriate to the task and the level of existing engineering controls.

Body: Wear nitrile or other impervious gloves if skin contact is possible. Wear appropriate gloves, lab coat, or other protective overgarment if skin contact is likely. Base the choice of skin protection on the job activity, potential for skin contact, and solvents and reagents in use.

Other: Avoid release to the environment and operate within closed systems whenever practicable. Air and liquid emissions should be directed to appropriate pollution control devices. In case of spill, do not release to drains. Implement appropriate and effective emergency response procedures to prevent release and inadvertent contact by personnel. Wash hands in the event of contact with this substance, especially before eating, drinking, or smoking. Protective equipment is not to be worn outside the work area (e.g., in common areas or out-of-doors). Decontaminate all protective equipment following use. Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid	**Vapor Pressure:**	No data available
Odor:	Faint odor	**Vapor Density:**	No data available
Odor Threshold:	No data available	**Evaporation Rate:**	No data available
Color:	White	**Flammability:**	No data available
Molecular Weight:	No data available	**Upper/lower Explosive Limit:**	No data available
pH:	No data available	**Flash Point:**	No data available
Boiling Point:	No data available	**Specific Gravity:**	No data available
Melting Point:	No data available	**Solubility in Water:**	Insoluble
Relative Density:	1.15	**Auto-Ignition Temperature:**	No data available
Partition Coefficient: n-octanol/water:	No data available	**Decomposition Temperature:**	No data available
Viscosity:	No data available	**Explosive Properties:**	No data available
Oxidizing Properties:	No data available	**Freezing Point:**	No data available

10 STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical Stability:	Stable under normal handling and storage conditions.
Hazardous Polymerization:	Not expected to occur.
Conditions to Avoid:	Keep away from heat, sparks, and open flame.
Incompatible Materials:	Strong oxidizers,
Hazardous Decomposition Products:	Zinc/zinc oxides may form under fire conditions.

11 TOXICOLOGICAL INFORMATION

Acute Toxicity:	May be absorbed by inhalation, skin contact, and ingestion.
Skin:	Farnesane: LD50: >5000 mg/kg Triethoxycaprylylsilane: LC50: >6730 mg/kg
Eyes:	No data available
Respiratory:	Zinc Oxide: LC50: >2500 mg/m^3 Farnesane: LC50: >2.19 mg/L Triethoxycaprylylsilane: LC50: >22ppm (4hr) C13-15 Alkane is considered to be an aspiration hazard based on kinematic viscosity.
Ingestion:	Zinc Oxide: LD50: >8437 mg/kg Farnesane: LD50: >5000 mg/kg Triethoxycaprylylsilane: LC50: >5110 mg/kg
Carcinogenicity:	No studies identified. This substance is not listed by NTP, IARC, ACGIH, or OSHA as a carcinogen.
Teratogenicity:	No data available
Germ Cell Mutagenicity:	Negative in an Ames bacterial cell mutagenicity assay and lymphoma assay. Not clastogenic at

	non-precipitating doses with or without metabolic activation in the chromosome aberration study.
Developmental Toxicity:	Pre-natal development toxicity studies with farnesane treated for up to 20 days at does levels of 100, 300, and 1000 mg/kg/bw/day (OECD 414) showed no treatment related adverse effects (NOEL 1000 mg/kg/bw/day).
Embryotoxicity:	No data available
Specific Target Organ Toxicity:	No data available
Reproductive Toxicity:	No data available
Respiratory/Skin Sensitization:	No data available
Corrosivity:	C13-15 Alkane may cause dermal irritation. In *in vitro* eye and skin tests (MatTek Epiocular™ MTT viability assay, MatTek Epiderm™ skin irritation test) C13-15 Alkane was non-irritating. In human 48hr patch testing, C13-15 Alkane was considered non-irritating. In HRIPT, irritating was noted as the pure substance under highly localized and occluded conditions. At lower concentrations or with open application, mild to no irritation was observed; no irritation was observed at concentrations of up to 60%. NIOSH toxicity data for zinc oxide indicates mild irritation at 500 mg/24hr (eyes), and mild irritation at 500mg/24hr (skin). Triethoxycaprylylsilane is classified as a skin irritant.
Sensitization:	In three human repeated patch studies, C13-15 Alkane was not considered to be a sensitizer ranging from concentrations of 20% to 80%. Farnesane was not sensitizing by the Local Lymph Node Assay (in concentrations up to 40%). None of the ingredients are considered sensitizers.
Irritation:	C13-15 Alkane may cause dermal irritation. In *in vitro* eye and skin tests (MatTek Epiocular™ MTT viability assay, MatTek Epiderm™ skin irritation test) C13-15 Alkane was non-irritating. In human 48hr patch testing, C13-15 Alkane was considered non-irritating. In HRIPT, irritating was noted as the pure substance under highly localized and occluded conditions. At lower concentrations or with open application, mild to no irritation was observed; no irritation was observed at concentrations of up to 60%. NIOSH toxicity data for zinc oxide indicates mild irritation at 500 mg/24hr (eyes), and mild irritation at 500mg/24hr (skin). Triethoxycaprylylsilane is classified as a skin irritant.
Repeated Dose Toxicity:	Repeat dose study at Farnesane dose levels 100, 300, and 1000 mg/kg/bw/day for 90 days (OECD 408) resulted no significant adverse effects (NOEL of 1000 mg/kg/bw/day).

12 ECOLOGICAL INFORMATION

Ecotoxicity	Zinc oxide is a category 1 aquatic and chronic aquatic hazard. C13-15 Alkane is not classified for acute or chronic toxicity to aquatic species. C13-15 Alkane is essentially insoluble in water (0.25µg/L) and is not expected to hydrolyze. Farnesane was tested in chronic fish and daphnia studies and no toxicity occurred at the limit of water solubility (0.25µg/L).
Aquatic Vertebrate:	Zinc Oxide: LC50: Median value 1120 mg/L (EPA) (Fish, 96h)
Aquatic Invertebrate:	No data available
Terrestrial:	Based on the results from similar substances, C13-15 Alkane is not expected to inhibit the activity of sewage sludge microorganisms.
Persistence and Degradability:	In CO_2-evolution ready biodegradability tests (OED 301B), C13-15 Alkane degradation was between 12-44% by 28 days. In addition, modelled data (BioHCW in v1.01), predict that C13-15 Alkane will be inherently biodegradable and that its half-life is 22 days. The measured half-life in a seawater biodegradation study was 3.5 days (CONCAWE).
Bioaccumulative Potential:	BCF 217 for zinc oxide. C13-15 Alkane predicted range 1074 to 1944 L/kg wet-wt by modelling (EpiSuite v4.11 and BCFBAF v3.01). Based on predicted values of less than 2000 L/kg wet-wt C13-15 Alkane is not expected to bioaccumulate.
Mobility in Soil:	C13-15 Alkane is not expected to be mobile in soil. Predicted log Koc: 6.5 (Kowwin method)
PBT and vPvB Assessment:	Based on the chemical safety assessment and the results described herein, the components of this mixture are not a PBT/vPvB.
Other Adverse Effects:	No data available

13 DISPOSAL CONSIDERATIONS

Waste Residues:	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary, before disposing of waste product container. Do not send down the drain or flush down the toilet. All wastes containing the material should be properly labeled. Rinse waters resulting from spill cleanups should be discharged in an environmentally safe manner, e.g., appropriately permitted municipal or on-site wastewater treatment facility).
Product Containers:	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary, before disposing of waste product container.

The information in section 13 is for the product as shipped. Use and/or alterations to the product may change the characteristics of the material and alter the waste classification and proper disposal methods

14 TRANSPORT INFORMATION

DOT (Dept. of Transportation, USA):	UN Number: UN3082 UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. Transport Hazard Class: 9 Packing Group: III Environmental Hazards: This mixture is considered hazardous to the aquatic environment.
TDG (Transportation of Dangerous Goods, Canada):	UN Number: UN3082 UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. Transport Hazard Class: 9 Packing Group: III Environmental Hazards: This mixture is considered hazardous to the aquatic environment.
IMDG (International Maritime Dangerous Goods):	UN Number: UN3082 UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. Transport Hazard Class: 9 Packing Group: III Environmental Hazards: This mixture is considered hazardous to the aquatic environment.
IATA (International Air Transport Association):	UN Number: UN3082 UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. Transport Hazard Class: 9 Packing Group: III Environmental Hazards: This mixture is considered hazardous to the aquatic environment.
ICAO (International Civil Aviation Organization):	UN Number: UN3082 UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. Transport Hazard Class: 9 Packing Group: III Environmental Hazards: This mixture is considered hazardous to the aquatic environment.
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code:	Not applicable

15 REGULATORY INFORMATION

TSCA Inventory Status:	Ingredients are listed on the TSCA Inventory.
DSCL (EEC):	No data available
WHMIS (Canada):	This SDS contains the information required by WHMIS 2015 regulations. All ingredients are listed on the Canadian DSL.
EU EINECS/ELINCS/NLP:	No data available
China IECSC:	No data available
China IECIC (06.30.2014):	No data available
Australia AICS:	No data available
Japanese MITI:	No data available
Philippines PICCS:	No data available
Korea KECL:	No data available
OSHA Hazardous:	Considered hazardous to the aquatic environment according to GHS. Any spillage should be

collected and disposed of according to appropriate regulations.

EU REACH: Ingredients are registered with REACH.
SARA 313: Not listed
California Prop 65: Not listed

16 OTHER INFORMATION

Revision Date: 27-May-2021
Compliance: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200
Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitableness & completeness of such information for his own particular use.