

Material Safety Data Sheet

Gilsonite

This Material Safety Data Sheet contains environmental, health and toxicology information for your employees. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information incorporated in your MSDS. Discard any previous edition of this MSDS.

This MSDS is formatted to provide you with useful hazard warnings and health evaluations and to facilitate your compliance with local, State and Federal regulations.

1. PRODUCT IDENTIFICATION

Gilsonite Resin

- A HAZARD WARNING IS NOT REQUIRED FOR THIS PRODUCT UNDER OSHA HAZARD COMMUNICATION STANDARDS (29 CFR 1910.1200)

PRODUCT INFORMATION: (650) 854-8866

2. FIRST AID

EYE CONTACT:

No first aid procedures are required. However, as a precaution flush eyes with fresh water for 15 minutes. Remove contact lenses if worn.

SKIN CONTACT:

No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

INHALATION:

If any signs or symptoms as described in this document occur, move the person to fresh air. If any of these effects continue, see a doctor.

INGESTION:

Not expected to be an ingestion problem, no first aid procedures are required.

3. IMMEDIATE HEALTH EFFECTS

EYE CONTACT:

This substance may cause eye irritation due to the abrasive action of the dust. The degree of the injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment. Signs and symptoms may include pain, tears, swelling, redness, and blurred vision. This hazard evaluation is based on the data from similar materials.

SKIN IRRITATION:

This substance is not expected to cause prolonged or significant skin irritation. This hazard evaluation is based on data from similar materials.

DERMAL TOXICITY:

NDA

RESPIRATORY/INHALATION:

Breathing the dust at concentrations that exceed the recommended exposure standard may be irritating to the respiratory tract. Signs and symptoms of respiratory tract irritation may include, but may not be limited to, one or more of the following: nasal discharge, sore throat, coughing, bronchitis, pulmonary edema and difficulty in breathing.

INGESTION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if swallowed.

4. PROTECTIVE EQUIPMENT

EYE PROTECTION:

Do not get this material in your eyes. Eye contact can be avoided by wearing chemical goggles.

SKIN PROTECTION:

No special skin protection is necessary.

RESPIRATORY PROTECTION:

No special respiratory protection is normally required. However, if operating conditions create high airborne concentrations, the use of an approved respirator is recommended.

VENTILATION:

No special ventilation is usually necessary. However, if operating conditions create high airborne concentrations of this material, special ventilation may be needed.

5. FIRE PROTECTION

FLASH POINT: (COC) 599 0 F

AUTOIGNITION: NDA

FLAMMABILITY: NDA

EXTINGUISHING MEDIA: CO₂, Dry Chemical, Foam, Water Fog

NFPA RATINGS: Health 0; Flammability 1; Reactivity 0; Special NDA;

(Least - 0, Slight - 1, Moderate - 2, High - 3, Extreme - 4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association or, if applicable, the National Paint and Coating Association, and do not necessarily reflect the hazard

evaluation of American Gilsonite Company. Read the entire document and label before using this product.

FIRE FIGHTING PROCEDURES:

For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

COMBUSTION PRODUCTS:

Normal combustion forms carbon dioxide, water vapor and may produce oxides of nitrogen. Incomplete combustion can produce carbon monoxide.

6. STORAGE, HANDLING, AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:

NDA

STABILITY:

Stable.

HAZARDOUS POLYMERIZATION:

Polymerization will not occur.

INCOMPATIBILITY:

May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

SPECIAL PRECAUTIONS:

Dusts are subject to combustion or explosion upon contact with sparks, open flames, or temperatures in excess of 1000°F (570°C). Any potential of sparking or ignition should be moved prior to pulverizing or other process resulting in dust generation. Where long-term exposures to vapors, distillates or solids resulting from heating to temperatures above 550°F (288°C) can be anticipated, protective clothing and respiratory equipment are recommended.

7. PHYSICAL PROPERTIES

SOLUBILITY: Soluble in various petroleum and chlorinated solvents.

APPEARANCE: Black Solid

BOILING POINT: NA

MELTING POINT: 275 – 400 °F (135 - 205°C)

EVAPORATION: NA

SPECIFIC GRAVITY: 1.04 – 1.06

VAPOR PRESSURE: NDA

PERCENT VOLATILE (VOLUME %): 2% @ 325 F (163 C) for 5 hrs.

VAPOR DENSITY (AIR = 1): NA

8. SPILL RESPONSE AND DISPOSAL

CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300 (24 hour).

SPILL/LEAK PRECAUTIONS:

This material is not expected to present any environmental problem.

Clean up spills immediately, observing precautions in Protective Equipment section.

DISPOSAL METHODS:

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

9. EXPOSURE STANDARDS, REGULATORY LIMITS AND COMPOSITION

COMPOSITIONS COMMENT:

All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

Based upon information reviewed to date, this product fits the ACGIH definition for nuisance dust. The ACGIH TLV is 5mg/m³ and the STEL is 10mg/m³. The OSHA PEL for respirable dust is 5mg/m³.

The percent compositions are given to allow for the various ranges of the components present in the whole product and may not equal 100%.

PERCENT/CAS# COMPONENT/REGULATORY LIMITS

100.0% Gilsonite Resin

CONTAINING

100.0% Hydrocarbon – Black Solid

CAS12002-43-6

TLV - Threshold Limit Value PEL - Permissible Exposure Limit

STEL - Short-term Exposure Limit TPQ - Threshold Planning Quantity

RQ - Reportable Quantity

10. REGULATORY INFORMATION

DOT SHIPPING NAME: NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE FEDERAL DOT.

DOT HAZARD CLASS: Non Hazardous

DOT IDENTIFICATION: NA

SARA 311 CATEGORIES:

1. Immediate (Acute) Health Effects; NO
2. Delayed (Chronic) Health Effects; NO
3. Fire Hazard; YES
4. Sudden Release of Pressure Hazard; NO
5. Reactivity Hazard; NO

WHEN A COMPONENT OF THIS MATERIAL IS SHOWN IN THIS SECTION, THE REGULATORY LISTS ON WHICH IT APPEARS IS INDICATED.

REGULATORY LISTS:

01=SARA 313 02=MASS RTK 03=NTP Carcinogen

04=CA Prop. 65 05=MI 406 06=IARC Group 1

07=IARC Group 2A 08=IARC Group 2B 09=SARA 302/304
10=PA RTK 11=NJ RTK 12=CERCLA 302.4
13=MN RTK 14=ACGIH TLV 15=ACGIH STEL
16=ACGIH Calculated TLV 17=OSHA PEL 18=OSHA STEL
19=EPA Carcinogen 20=TSCA SECT 4 21=TSCA SECT 5 SNUR
22=TSCA SECT 6 RULE 23=TSCA SECT 12 EXPORT 24=TSCA SECT 8A CAIR
25=TSCA SECT 8D REPORT 26=TSCA SECT 8E 27=Canadian WHMIS

11. PRODUCT TOXICOLOGY DATA

EYE CONTACT:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

SKIN IRRITATION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

DERMAL TOXICITY:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

RESPIRATORY/INHALATION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

INGESTION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

12. ADDITIONAL HEALTH DATA

ADDITIONAL HEALTH DATA COMMENT:

No significant health effects were observed in a chronic feeding study conducted for the National Toxicology Program (NTP) where mice and rats were fed diets containing either 2% or 4% GILSONITE for their lifetimes. In another study, 10% GILSONITE in benzene applied 3 times a week for 80 weeks to the skin of mice caused no increase in skin cancer over what was observed in the control group. In a third study, a sample of GILSONITE heated to 550°F (288°C) and cooled was not found to be mutagenic in the Ames assay. The National Institute for Occupational Safety and Health was unable to detect polynuclear aromatic hydrocarbons in GILSONITE. The information presented above suggests that GILSONITE has a low order of toxicity and is not carcinogenic.

Although ER Resin is not a carcinogen, processes in which GILSONITE is brought to very high temperatures may alter its complex hydrocarbon structure and may produce carcinogenic substances. Thermal cracking of complex hydrocarbon is known to produce polynuclear aromatic hydrocarbons, some of which are known to be carcinogenic and mutagenic. Ames mutagenicity screening tests were conducted on samples of GILSONITE which were heated. A sample heated to 650°F (343°C) and allowed to cool was found to be mutagenic. In another study, GILSONITE distilled at approximately 2500°F (1371°C) and dissolved in benzene was carcinogenic when applied 3 times a week for 80 weeks to the skin of mice.

Handling ER Resin is not expected to cause cancer. However, skin contact and breathing of vapor or mists derived from certain processes in which ER Resin is heated to high temperatures should be avoided. Please refer to the Special Precautions section of this document.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination for the suitability of the material for his particular purpose.