

CHRONIC EFFECTS:

CARCINOGENICITY:

IARC: Not listed. OSHA: Not regulated. NTP: Not listed.

ROUTE OF ENTRY:

Inhalation. Skin and/or eye contact.

TARGET ORGANS:

Respiratory system, lungs. Skin. Eyes.

4. FIRST AID MEASURES

GENERAL:

Persons seeking medical attention should carry a copy of this MSDS with them.

INHALATION:

Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Get medical attention.

INGESTION:

Drink a couple of glasses water or milk. Do NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. Get medical attention.

SKIN:

Wash skin thoroughly with soap and water. Remove contaminated clothing. Get medical attention if any discomfort continues.

EYES:

Promptly wash eyes with lots of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F):

599

METHOD: Cd OC (Cleveland open cup).

AUTO IGNITION TEMP. (°F):

N/D

FLAMMABILITY LIMIT - LOWER(%):

N/D

FLAMMABILITY LIMIT - UPPER(%):

N/D

EXTINGUISHING MEDIA:

Carbon dioxide (CO2). Dry chemicals. Foam. Water spray, fog or mist.

SPECIAL FIRE FIGHTING PROCEDURES:

Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (including fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Dust in high concentrations may form explosive mixtures with air.

HAZARDOUS COMBUSTION PRODUCTS:

Irritating gases/vapors/fumes. Oxides of: Carbon. and Nitrogen.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Wear proper personal protective equipment (see MSDS Section 8).

SPILL CLEAN-UP PROCEDURES:

Avoid generating and spreading of dust. Shovel into dry containers. Cover and move the containers. Flush the area with water. Do not contaminate drainage or waterways. Repackage or recycle if possible.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Avoid handling causing generation of dust. Wear full protective clothing for prolonged exposure and/or high concentrations. Eye wash and emergency shower must be available at the work place. Wash hands often and change clothing when needed. Provide good ventilation. Mechanical ventilation or local exhaust ventilation is required.

STORAGE PRECAUTIONS:

Store at moderate temperatures in dry, well ventilated area. Keep in original container.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

INGREDIENT NAME:

Gilsonite

120225

INGREDIENT COMMENTS:

No exposure limits noted for ingredient(s). Exposure limits are for Particulates Not Otherwise Classified (PNOC).

PROTECTIVE EQUIPMENT:**ENGINEERING CONTROLS:**

Use appropriate engineering controls such as, exhaust ventilation and process enclosure, to reduce air contamination and keep worker exposure below the applicable limits.

VENTILATION: Supply natural or mechanical ventilation adequate to exhaust airborne product and keep exposures below the applicable limits.

RESPIRATORS: Use at least a NIOSH-approved N95 half-mask disposable or reuseable particulate respirator. In work environments containing oil mist/aerosol use at least a NIOSH-approved P95 half-mask disposable or reuseable particulate respirator.

PROTECTIVE GLOVES:

Use suitable protective gloves if risk of skin contact.

EYE PROTECTION:

Wear dust resistant safety goggles where there is danger of eye contact.

PROTECTIVE CLOTHING:

Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENIC WORK PRACTICES:

Wash promptly with soap and water if skin becomes contaminated. Change work clothing daily if there is any possibility of contamination.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE:

Powder.

COLOR:

dust.

ODOR:

Black.

SOLUBILITY DESCRIPTION:

Hydrocarbon.

MELT/FREEZ. POINT (°F, interval):

Insoluble in

DENSITY/SPECIFIC GRAVITY (g/ml):

water.

275 - 399

1.04 - 1.05

TEMPERATURE (°F): 61

| | | |
|------------------------------------|-----|-----------------------------|
| VAPOR DENSITY (air=1): | N/A | |
| VAPOR PRESSURE: | N/A | TEMPERATURE (°F): |
| pH-VALUE, DILUTED SOLUTION: | N/A | CONCENTRATION (%.M): |

10. STABILITY AND REACTIVITY

STABILITY: Normally stable.

CONDITIONS TO AVOID:

Avoid heat.

HAZARDOUS POLYMERIZATION:

Will not polymerize.

POLYMERIZATION DESCRIPTION:

Not relevant.

MATERIALS TO AVOID:

Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:

No specific hazardous decomposition products noted.

11. TOXICOLOGICAL INFORMATION

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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. Gilsonite distilled at approximately 2500 F and dissolved in benzene was a carcinogenic when applied 3 times a week for 80 weeks to the skin of mice. Although Gilsonite 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. A sample of Gilsonite heated to 550 F and cooled was not found to be mutagenic in the Ames assay. A sample heated to 650 F and allowed to cool was found to be mutagenic.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

Contact M-I Environmental Affairs for ecological information.

13. DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT:

This product does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc, may render the resulting materials hazardous. Empty containers retain residues. All labeled precautions must be observed.

DISPOSAL METHODS:

Recover and reclaim or recycle, if practical. Should this product become a waste, dispose of in a permitted industrial landfill. Ensure that containers are empty by RCRA criteria prior to disposal in a permitted industrial landfill.

14. TRANSPORT INFORMATION

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|----------------------------|----------------|
| PRODUCT RQ: | N/A |
| U.S. DOT: | |
| U.S. DOT CLASS: | Not regulated. |
| CANADIAN TRANSPORT: | |
| TDGR CLASS: | Not regulated. |
| SEA TRANSPORT: | |
| IMDG CLASS: | Not regulated. |
| AIR TRANSPORT: | |
| ICAO CLASS: | Not regulated. |

DISCLAIMER

MSDS furnished independent of product sale. While every effort has been made to accurately describe this product, some of the data are obtained from sources beyond our direct supervision. We cannot make any assertions as to its reliability or completeness; therefore, user may rely on it only at user's risk. We have made no effort to censor or conceal deleterious aspects of this product. Since we cannot anticipate or control the conditions under which this information and product may be used, we make no guarantee that the precautions we have suggested will be adequate for all individuals and/or situations. It is the obligation of each user of this product to comply with the requirements of all applicable laws regarding use and disposal of this product. Additional information will be furnished upon request to assist the user; however, no warranty, either expressed or implied, nor liability of any nature with respect to this product or to the data herein is made or incurred hereunder.