

SAFETY DATA SHEET

IN-TONE RM

Prepared to U.S. OSHA 29 CFR 1910.1200 (2012)

SECTION 1: IDENTIFICATION

1.1 Trade Name: IN-TONE RM

Chemical Name: Surface Treated Hormite Clay

Synonyms: None

CAS#: Mixture

1.2 Product Use: Drilling mud additive

Address: 2575 Kelley Pointe Parkway, Edmond, OK 73013

Business Phone: 405-285-6454 (product information)

Web site: www.valencedf.com

1.4 Emergency Phone Number: 1-800-424-9300 (Chemtrec)

Date of Current Revision: January 12, 2017

Date of Previous Revision: February 24, 2015

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Warning!

Product Description: This product is a phyllosilicate proprietary organic surface treatment clay; contains <5% by weight of silica.

Route(s) of Entry: Inhalation? Yes; Skin? No; Ingestion? No

Health Hazards (Acute and Chronic):

Inhalation: May be irritating to the lungs and cause coughing. May be harmful if inhaled in sufficient quantities. Prolonged exposure to dust may cause lung diseases including silicosis, lung cancer and chronic obstructive pulmonary disease (COPD).

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Harmful if inhaled and may cause delayed lung injury. Repeated and prolonged exposure to respirable crystalline quartz which may be contained in the dust may cause delayed (chronic) lung injury silicosis. Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death. Signs and symptoms of exposure include undue breathlessness, wheezing, cough and sputum products.

The dust can cause eye, skin, nose, throat, mucous membrane and respiratory irritation by drying out (defatting) the tissues over prolonged exposure.

Carcinogenicity: NTP? Yes; IARC Monographs? Yes; OSHA Regulated? Yes

Clay, like other naturally occurring minerals, may contain crystalline silica. IARC has concluded that there is limited evidence for the carcinogenicity of crystalline silica to humans and sufficient evidence of carcinogenicity of crystalline silica in experimental animals (IARC Class 2A). The NTP has concluded that "silica: Crystalline (respirable)" may reasonably be anticipated to be a carcinogen, based upon evidence for the carcinogenicity of respirable crystalline silica in experimental animals and limited evidence in humans.

Medical Conditions Generally Aggravated by Exposure: Pulmonary function may be reduced by inhalation of respirable crystalline silica that may be in dust, lung scarring produced by such inhalation may lead to progressive massive fibrosis of the lung which may aggravate other pulmonary conditions and diseases and which increases the susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure and pulmonary failure. Smoking aggravates the effects of exposure.

Eye contact: May cause eye irritation.

Skin contact: May cause skin irritation/defatting.

Ingestion: Harmful if swallowed. May cause mouth, throat and esophageal irritation.

Flammable Hazards: Fine particles of dust in sufficient quantity in the air may present an explosion hazard. Minimum explosible concentration (MEC) tested to be 55 g/m³.

Reactivity Hazards: This product is not reactive.

Environmental Hazards: None known.

2.2 Label Elements



GHS Hazard Classification(s):

Carcinogenicity Category 2 (suspect)

Single Target Organ Toxicity – Single Exposure Category 3 (lung irritation)

Single Target Organ Toxicity - Repeated Exposure Category 2 (silicosis)

Skin Irritant Category 2B

Eye Irritant Category 2B

Combustible Dust

2.3 Hazard Statements

Suspect of causing lung cancer via inhalation.

May cause respiratory irritation.

Causes damage to lungs (silicosis) through prolonged or repeated exposure via inhalation.

Causes skin and eye irritation.

May form combustible dust concentrations in air.

2.4 Precautionary Statements:

Prevention: Use only outdoors or in a well-ventilated area. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye/face protection and protective gloves.

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

The specific chemical identities and percentages have been withheld as a trade secret.

Proprietary Hormite Clay; proprietary organic surface treatment; contains Crystalline Silica (<5% by weight)

SECTION 4 – FIRST AID MEASURES

Inhalation – For gross inhalation, remove person immediately to fresh air. If the person is unconscious, give artificial respiration as needed, seek medical attention.

Skin contact – Remove contaminated clothing and wash skin thoroughly to remove contamination.

Eye contact – For dust in eyes, immediately wash with water for at least 15 minutes. Always seek medical attention when a chemical enters the eye.

Ingestion- Do not induce vomiting without medical advice. May become an aspiration hazard.

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General: Seek medical attention if you feel unwell.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point (method used): non-flammable

Flammable Limits: None LEL: None UEL: None

Extinguishing Media: Dry Chemical/Dry Sand/Carbon Dioxide

Special Fire Fighting Procedures: Fire fighters must wear SCBA.

Unusual Fire and Explosion Hazards: High concentrations of organoclay dust may present an explosion hazard. Precautions for organic dusts should be taken. Ensure equipment is grounded and intrinsically safe.

Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides of nitrogen (NO_x) is to be expected. Incomplete combustion may form carbon monoxide. Burning produces noxious and toxic fumes. Personnel must be evacuated.

Do not allow run-off from firefighting to enter drains or water ways. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Use dustless methods (vacuum) and place into closable container for disposal. Do not dry sweep or generate a dust cloud. Care should be taken to avoid high dust concentrations, especially in enclosed spaces. Wear safety glasses, gloves and a dust mask suitable for particulates and certified by NIOSH. Spilled material may become very slippery when wet with water, grease, oil, gasoline, or solvents.

SECTION 7 – HANDLING AND STORAGE

Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes. Keep away from incompatibles such as acids. Store material at room temperature in a secure location that is well ventilated with containers securely closed.

Use dustless systems for handling, storage, and clean up so that airborne dust does not exceed the PEL. Use adequate ventilation and dust collection. Ensure equipment is grounded and intrinsically safe. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Maintain and test ventilation and dust collection equipment. Wash or vacuum clothing which has become dusty. Maintain, clean, and fit test respirators in accordance with OSHA regulations.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

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8.1 Exposure Limits

OSHA has proposed a rule to reduce the PEL for silica dust to 50 ($\mu\text{g}/\text{m}^3$), averaged over an 8-hour day.

The current OSHA PEL when silica is classified as nuisance dust (less than 1% crystalline silica is present) the PEL is 5.00 mg/m³ (respirable). If greater than 1% crystalline silica, then exposures shall not exceed an 8 hour time weighted average limit as calculated by the formula stated in 29 CFR 1910.1000 Table Z-3 for mineral dusts.

The NIOSH recommended exposure limit (REL) for respirable crystalline silica is 50 $\mu\text{g}/\text{m}^3$ as a TWA for up to 10 hours/day during a 40-hour workweek.

8.2 Engineering Controls

Local Exhaust: Use sufficient local exhaust to reduce the level of dust to below the PEL. See ACGGIH "Industrial Ventilation, A manual of Recommended Practice," the latest edition.

8.3 Personal Protective Equipment

The following chart specifies the types of respirators which may provide protection for respirable crystalline silica that may be contained in the product.

RESPIRATORY PROTECTION FOR CRYSTALLINE SILICA

Condition	MINIMUM RESPIRATORY PROTECTION*
Particulate	
Up to 5 x PEL	any dust respirator
Up to 10 x PEL	any dust respirator, except single use or quarter-mask respirator any fume respirator of high efficiency particulate filter respirator any supplied-air respirator any self-contained breathing apparatus
Up to 50 x PEL	any high efficiency particulate filter respirator with a full face-piece any supplied-air respirator with a full face-piece, helmet or hood any self-contained breathing apparatus with a full face-piece

Up to 500 x PEL

powered air-purifying respirator with a high efficiency particulate filter

Greater than 550 x PEL

self-contained breathing apparatus with a full face-piece operated in pressure-positive pressure mode

*Only NIOSH-approved equipment should be used. (See 29 CFR 1910.134).

When dust may enter the eyes, wear appropriate safety glasses/goggles and face shield as needed by each task. Gloves may be necessary if contact with the material is necessary due to the potential for irritation and drying out the skin.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: NA

Specific Gravity (water=1.0): 1.7

Melting Point: 1,000 F

Soluble in Water: Material is hydrophobic, but dispersible in organic fluids. Forms viscous gel in diesel, kerosene, gasoline, etc. and becomes very slippery.

Vapor Pressure: 0 mm Hg

Odor: earthy

Appearance: off white powder (90% <325 mesh)

Moisture content: <4% by weight

pH: Not applicable

Boiling point: Not applicable

Freezing point: Not applicable

Evaporation rate: Not applicable

Flashpoint: Not applicable

Vapor density: Not available

Viscosity: Not available

Minimum Explosible Concentration (MEC): 55 g/m³

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: This product is not reactive.

Stability: Stable under conditions of normal storage and use.

Possibility of Hazardous Reactions: Will not occur.

Conditions To Avoid: Excess dusty conditions and ignition sources.

Materials with Which Substance Is Incompatible: None known.

Hazardous Decomposition Products: Thermal decomposition products include carbon monoxide, carbon dioxide, ammonia gas and nitrogen oxides/nitric acid.

SECTION 11 – TOXICOLOGICAL INFORMATION

Carcinogenicity: NTP? Yes IARC Monographs? Yes OSHA Regulated? Yes

Acute Toxicity:

Ingestion – no data available on the product itself.

Inhalation - no data available on the product itself.

Skin - no data is available on the product itself.

LD50 – not determined

LC50 – not determined

Chronic Health Hazard:

IARC has concluded that there is limited evidence for the carcinogenicity of crystalline silica to humans and sufficient evidence of carcinogenicity of crystalline silica in experimental animals (IARC Class 2A). The NTP has concluded that “silica: Crystalline (respirable)” may reasonably be anticipated to be a carcinogen, based upon evidence for the carcinogenicity of respirable crystalline silica in experimental animals and limited evidence in humans.

Over prolonged exposure, the product can dry out the skin, eyes and mucous membranes.

SECTION 12 – ECOLOGICAL INFORMATION

No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations.

SECTION 14 – TRANSPORT INFORMATION

Not regulated by USDOT for transportation.

SECTION 15 – REGULATORY INFORMATION

Safety, Health and Environmental Regulations Specific for the Mixture - United States Regulations:

U.S. SARA Reporting Requirements: The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. TSCA Inventory Status: The components of this product are listed on the TSCA Inventory or are exempted from listing.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does contain ingredients that are on the Proposition 65 Lists.

SECTION 16 – OTHER INFORMATION

HMIS Rating:

Health: 1*

Fire: 0

Reactivity: 0

Date of preparation: January 12, 2017

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful health effects which may be caused by purchase, resale, and use of exposure to our product. Customers-and users of our product must comply with all applicable health and safety laws, regulations and orders.