

MATERIAL SAFETY DATA SHEET

LANXESS

Energizing Chemistry

LANXESS Corporation

Product Safety & Regulatory Affairs
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TRANSPORTATION EMERGENCY

CALL CHEMTREC: (800) 424-9300
INTERNATIONAL: (703) 527-3887

NON-TRANSPORTATION

LANXESS Emergency Phone: (800) 410-3063
LANXESS Information Phone: (800) LANXESS

1. Product and Company Identification

Product Name: 2619
Material Number: 2470156
Chemical Family: Inorganic Metal Oxide
Chemical Name: Goethite
Synonyms: Ochre
Formula: Mixture of FeO(OH), Mn2O3, SiO2

2. Hazards Identification

Emergency Overview

WARNING! Color: Yellow Form: solid Powder Odor: Odorless.
May cause eye, skin, and respiratory tract irritation. May cause lung damage. Contains material which can cause cancer.

Potential Health Effects

Primary Routes of Entry: Inhalation, Skin Contact, Eye Contact, Ingestion

Medical Conditions Aggravated by Exposure: Respiratory disorders, Eye disorders, Skin disorders

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Component: Ochre

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May be harmful by inhalation. May cause mechanical irritation.

For Component: Manganese Oxide

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. May be harmful by inhalation.

Chronic Inhalation

For Component: Ochre

Prolonged inhalation of excessive levels of dust may cause pneumoconiosis.

Skin

Acute Skin

For Component: Ochre

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

For Component: Manganese Oxide

May cause irritation with symptoms of reddening and itching. May cause mechanical irritation.

Eye

Acute Eye

For Component: Ochre

May cause mechanical irritation.

For Component: Crystalline Quartz Silica

May cause mechanical irritation.

For Component: Manganese Oxide

May cause irritation with symptoms of reddening, tearing and stinging. May cause mechanical irritation.

Ingestion

Acute Ingestion

For Component: Crystalline Quartz Silica

Not expected to be harmful if swallowed.

For Component: Manganese Oxide

Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea. This material is known to cross the placental barrier and exposure during pregnancy may affect the fetus.

Chronic Ingestion

For Component: Manganese Oxide

May cause lung damage. Adverse clinical effects can develop from body accumulation. May cause nervous system damage with symptoms of numbness, incoordination, headache, and confusion.

General Effects of Exposure

Acute Effects of Exposure

For Component: Crystalline Quartz Silica

Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. The earliest symptoms of silicosis may include: Shortness of breath, coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

Chronic Effects of Exposure

For Component: Crystalline Quartz Silica

Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis.

Carcinogenicity:

Crystalline Quartz Silica

NTP - Hazard Designation: Known carcinogen.

NTP - Hazard Designation: Known carcinogen.

IARC - Agent not assigned an overall evaluation:

IARC - Overall evaluation: 1 Human carcinogen.

3. Composition/Information on Ingredients**Hazardous Components**

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
30 - 40%	Ochre	1343-81-3
15 - 25%	Crystalline Quartz Silica	14808-60-7
1 - 5%	Aluminum	7429-90-5
1 - 5%	Manganese Oxide	1313-13-9

4. First Aid Measures**Eye Contact**

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact

In case of skin contact, wash affected areas with soap and water.

Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

5. Fire-Fighting Measures**Suitable Extinguishing Media:**

Material is not combustible. Use extinguishing media suitable for other combustible materials in the area.

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

6. Accidental release measures**Spill and Leak Procedures**

Spills should be swept up and placed in appropriate containers for disposal. Clean up promptly by scoop or vacuum. Avoid creating dusty conditions.

7. Handling and Storage

Storage Period

Unlimited in tightly closed containers.

Handling/Storage Precautions

Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Keep container closed when not in use. Avoid breathing dust.

Further Info on Storage Conditions

Store in a cool dry place. Store in original or similar containers. Minimize dust generation and accumulation. Protect equipment (e.g. storage bins, conveyors, dust collectors) with explosion vents. Material can be stored safely at ambient temperatures.

8. Exposure Controls / Personal Protection

Crystalline Quartz Silica (14808-60-7)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 0.05 mg/m³ (Respirable fraction.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Aluminum (7429-90-5)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m³ (Dust.)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 5 mg/m³ as Al (Pyrophoric powder.)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 5 mg/m³ as Al (Welding fume.) This data record is no longer present in the Ariel database

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 15 mg/m³ as Al (Total dust.)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

PEL: 5 mg/m³ as Al (Respirable dust.)

Industrial Hygiene/Ventilation Measures

Under normal conditions of use, special ventilation is not required.

Respiratory Protection

The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline., NIOSH approved, air-purifying particulate respirator with N-95 filters.

Eye Protection

safety glasses.

Skin and body protection

No special skin protection requirements during normal handling and use.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product.

9. Physical and chemical properties

Form:	solid
Appearance:	Powder
Color:	Yellow
Odor:	Odorless
pH:	Approximately 8.5 10% aqueous solution
Melting Point:	Not Established
Flash Point:	not applicable
Lower Explosion Limit:	Not Established
Upper Explosion Limit:	Not Established
Vapor Pressure:	not applicable
Specific Gravity:	Approximately 3.5
Solubility in Water:	Less than 1%
Autoignition Temperature:	Not Applicable
Decomposition Temperature:	Not established
Viscosity, Dynamic:	not applicable
Bulk Density:	Approximately 55 lb/ft ³

10. Stability and Reactivity

Hazardous Reactions

Hazardous polymerization does not occur.

Stability

Stable

Materials to avoid

None known.

Hazardous decomposition products

None known.

11. Toxicological Information

Toxicity Data for Crystalline Quartz Silica

Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic

Activation: with/without)

Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster)

Carcinogenicity

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week

positive

Toxicity Data for Manganese Oxide

Acute Oral Toxicity

LD50: 9,000 mg/kg (rat)

Repeated Dose Toxicity

9 months, inhalation: NOAEL: 1 mg/m³, (Monkey)

Toxicity to Reproduction/Fertility

Reproductive effects have been observed in animal studies.

Developmental Toxicity/Teratogenicity

Teratogenic effects have been observed in animal studies. Fetotoxicity has been observed in animal studies.

12. Ecological Information**Ecological Data for Manganese Oxide****Biodegradation**

Not readily biodegradable.

The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulation

Does not bioaccumulate.

13. Disposal considerations**Waste Disposal Method**

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations.

14. Transportation information**Land transport (DOT)**

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

15. Regulatory Information**United States Federal Regulations**

OSHA Hazcom Standard Rating: Hazardous

US. Toxic Substances Control Act: This material is included in the TSCA Inventory as a naturally occurring chemical substance as described in 40 CFR 710.4 (b).

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components

None

SARA Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

US, EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):**Components**

None

US, EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:**Components**

Aluminum

US, EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
30 - 40%	Ochre	1343-81-3
>=1%	Goethite	1310-14-1
15 - 25%	Crystalline Quartz Silica	14808-60-7
1 - 5%	Aluminum	7429-90-5
1 - 5%	Manganese Oxide	1313-13-9

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
1 - 5%	Aluminum	7429-90-5
<1%	Potassium	7440-09-7
<1%	Phosphorus	7723-14-0
<1%	Magnesium	7439-95-4
<1%	Barium	7440-39-3

Pennsylvania Right to Know Special Hazard Substance List:

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
<0.1%	Nickel (Ni)	7440-02-0

California Prop. 65:

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic. - Developmental toxin. - Female reproductive toxin. - Male reproductive toxin.

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
15 - 25%	Crystalline Quartz Silica	14808-60-7
<0.1%	Lead	7439-92-1

<0.1%	Nickel (Ni)	7440-02-0
1 - 5 ppm	Mercury	7439-97-6
10 - 100 ppm	Arsenic	7440-38-2
1 - 10 ppm	Beryllium	7440-41-7
1 - 10 ppm	Cadmium	7440-43-9

16. Other Information

NFPA 704M Rating

Health	1
Flammability	0
Reactivity	0
Other	

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health	1*
Flammability	1
Physical Hazard	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

* = Chronic Health Hazard

LANXESS Corporation's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS Corporation as a customer service.

Contact Person: Product Safety Department
 Telephone: (800) LANXESS
 MSDS Number: R305111
 Version Date: 05/13/2005
 Report Version: 2.2

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