BURNT UMBER J4658

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2.2	11/07/2018	400000003474	Date of first issue: 07/22/2016

SECTION 1. IDENTIFICATION

Product name : BURNT UMBER J4658

Manufacturer or supplier's details

Company name of supplier : Venator Americas LLC
Address : 10001 Woodloch Forest Drive
The Woodlands,
TX 77380
United States of America (USA)
Telephone : (001) 844 831 6720
Telefax : (001) 281 465 6731

E-mail address of person responsible for the SDS : msds@venatorcorp.com

Emergency telephone number : USA & Canada: +1-800-424-9300 Other Americas: +1-703-741-5970 [CCN 820025]

Recommended use of the chemical and restrictions on use

Recommended use : Industrial use
Colouring agents, pigments

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Carcinogenicity (Inhalation) : Category 1A

Specific target organ toxicity - repeated exposure (Inhalation) : Category 2 (Lungs)

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H350i May cause cancer by inhalation.
H373 May cause damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/

face protection.
Response:
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
diiron trioxide	1309-37-1	10 - 20
dimanganese trioxide	1317-34-6	10 - 20
limestone	1317-65-3	5 - 10
carbon black	1333-86-4	1 - 5
quartz (SiO2)	14808-60-7	1 - 5

The specific chemical identity and/or exact percentage (concentration) of composition may be withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
Consult a physician.

If inhaled : Call a physician or poison control centre immediately.
If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and water.
If on clothes, remove clothes.
If skin irritation persists, call a physician.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.

Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Rinse mouth with water.
If material has been swallowed and the exposed person is conscious, give small quantities of water to drink.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If symptoms persist, call a physician or Poison Control Centre immediately.

Most important symptoms and effects, both acute and delayed : Dust contact with the eyes can lead to mechanical irritation.
Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.
The product is not irritant but as with all fine powders can absorb moisture and natural oils from the surface of the skin during prolonged exposure.
Individuals with sensitive skin may experience skin drying on prolonged or repeated exposure.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

Notes to physician : No specific measures identified.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Dry powder
Carbon dioxide (CO2)

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Cool closed containers exposed to fire with water spray.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information : Standard procedure for chemical fires.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	No action shall be taken involving any personal risk or without suitable training. Use personal protective equipment. Prevent unauthorised persons entering the zone. Avoid dust formation. Remove all sources of ignition. Ensure adequate ventilation. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Keep people away from and upwind of spill/leak. Only qualified personnel equipped with suitable protective equipment may intervene. Never return spills in original containers for re-use. Treat recovered material as described in the section "Disposal considerations". For disposal considerations see section 13. The danger areas must be delimited and identified using relevant warning and safety signs.
Environmental precautions	:	No special environmental precautions required. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid creating dusty conditions and prevent wind dispersal. Clean-up methods - large spillage Use personal protective equipment as required. Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations. After cleaning, flush away traces with water. Do not flush into surface water or sanitary sewer system.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	:	Minimize dust generation and accumulation. Avoid formation of respirable particles. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms.

Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place. Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : Keep in a dry place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
diiron trioxide	1309-37-1	TWA (Respirable fraction)	5 mg/m3	ACGIH
		TWA (Fumes)	10 mg/m3	OSHA Z-1
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
dimanganese trioxide	1317-34-6	C	5 mg/m3 (Manganese)	OSHA Z-1
		TWA (Inhalable fraction)	0.1 mg/m3 (Manganese)	ACGIH
		TWA (Respirable fraction)	0.02 mg/m3 (Manganese)	ACGIH
limestone	1317-65-3	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
quartz (SiO2)	14808-60-7	TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
		TWA (Respirable fraction)	0.025 mg/m3 (Silica)	ACGIH
		TWA (Respirable dust)	0.05 mg/m3	OSHA Z-1
carbon black	1333-86-4	TWA	3 mg/m3	ACGIH

		(Inhalable fraction)		
		TWA	3.5 mg/m3	OSHA Z-1

Engineering measures : Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Respiratory protection : W A R N I N G ! This product contains quartz, which has been classified by IARC as carcinogenic for humans (Group 1), and which can cause silicosis and lung cancer following exposure to respirable dust. It is therefore important to take particular care to avoid inhalation exposure.
General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
In the case of dust or aerosol formation use respirator with an approved filter.
Dust safety masks are recommended when the dust concentration is more than 10 mg/m3.
Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines

Filter type : Particulates type

Hand protection
Directive : Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US).

Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Tightly fitting safety goggles
Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Smoking, eating and drinking should be prohibited in the application area. Wash face, hands and any exposed skin thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	powder
Colour	:	light brown, dark brown
Odour	:	odourless
Odour Threshold	:	No data available
pH	:	No data available
Melting point	:	> 1,832 °F / > 1,000 °C
		> 1,832 °F / > 1,000 °C
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Will not burn
Flammability (liquids)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	Not applicable
		No data available
Relative vapour density	:	Not applicable
		No data available
Relative density	:	No data is available on the product itself.

Density	:	No data is available on the product itself.
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data is available on the product itself.
Partition coefficient: n-octanol/water	:	No data is available on the product itself.
Auto-ignition temperature	:	Not applicable
Thermal decomposition	:	No data is available on the product itself.
Self-Accelerating decomposition temperature (SADT)	:	No data is available on the product itself.
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	Not applicable
		No data available
Explosive properties	:	Not expected to form explosive dust-air mixtures.
Oxidizing properties	:	No data is available on the product itself.
Particle size	:	No data is available on the product itself.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	:	No data available
Incompatible materials	:	peroxides, e.g. hydrogen peroxide aluminum dust calcium hypochlorite hydrazine Ethylene oxide caesium carbide
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : No data is available on the product itself.

exposure

Acute toxicity

Components:

diiron trioxide:
Acute oral toxicityComponents : LD50 (Rat, male and female): > 5,000 mg/kg
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)

LD50 (Rat, male): > 10,000 mg/kg
Method: OECD Test Guideline 401

limestone:
Acute oral toxicityComponents : LD50 (Rat): 6,450 mg/kg

carbon black:
Acute oral toxicityComponents : LD50 (Rat, male and female): > 8,000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Components:

diiron trioxide:
Acute inhalation toxicity : LC50 (Rat, male and female): 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

carbon black:
Acute inhalation toxicity : LC50 (Rat): > 4.6 mg/m3
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : No data available

Acute toxicity (other routes of administration) : No data available

Skin corrosion/irritation

Components:

diiron trioxide:
Species: Rabbit
Exposure time: 4 h
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation

carbon black:

Species: Rabbit
Exposure time: 4 h
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation

Serious eye damage/eye irritation

Components:

diiron trioxide:
Species: Rabbit
Result: No eye irritation
Exposure time: 24 h
Assessment: No eye irritation
Method: OECD Test Guideline 405

limestone:
Species: Rabbit
Result: Mechanical irritation of the eyes is possible.
Assessment: No eye irritation

carbon black:
Species: Rabbit
Result: No eye irritation
Assessment: No eye irritation
Method: OECD Test Guideline 405

Respiratory or skin sensitisation

Components:

diiron trioxide:
Exposure routes: Dermal
Species: No information available.
Assessment: Did not cause sensitisation on laboratory animals.
Method: Other guidelines
Result: Does not cause skin sensitisation.

Exposure routes: Skin
Species: Mouse
Method: OECD Test Guideline 429
Result: Does not cause skin sensitisation.

limestone:
Exposure routes: Skin
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.

carbon black:
Test Type: Buehler Test
Exposure routes: Skin
Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.

Exposure routes: Respiratory Tract
Species: Mouse
Assessment: Does not cause respiratory sensitisation.
Result: Does not cause skin sensitisation.

Assessment: No data available

Germ cell mutagenicity

Components:

diiron trioxide:
Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Concentration: 8 - 40 - 200 - 1000 - 5000 µg/
Metabolic activation: with and without metabolic activation
Method: reverse mutation assay
Result: negative

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Concentration: 0, 6.25, 12.5 and 25 µg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

carbon black:
Genotoxicity in vitro : Test Type: sister chromatid exchange assay
Test system: Chinese hamster ovary cells
Concentration: 0.00032-1 mg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 479
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Components:

diiron trioxide:
Genotoxicity in vivo : Test Type: in vivo assay
Species: Rat (female)
Dose: 0, 500, 1000, or 2000 mg/kg bw
Result: negative

Test Type: in vivo assay
Species: Rat (male)
Dose: 3.75 mg/kg bw

Result: negative

carbon black:
Genotoxicity in vivo : Test Type: in vivo assay
Species: Rat (females)
Cell type: Somatic
Application Route: Inhalation
Dose: 10 - 100 mg/kg
Result: positive

Test Type: in vivo assay
Species: Rat (females)
Application Route: Inhalation
Exposure time: 13 Weeks
Dose: 1 - 50 mg/m3
Result: negative

Test Type: in vivo assay
Application Route: Oral
Exposure time: 6 h
Dose: 1%
Method: OECD Test Guideline 477
Result: negative

Components:

carbon black:
Germ cell mutagenicity-Assessment : Contains no ingredient listed as a mutagen

Germ cell mutagenicity-Assessment : No data available

Carcinogenicity

Components:

diiron trioxide:
Species: Rat, male and female
Application Route: Intraperitoneal injection
Exposure time: 790 - 914 days
Result: negative

Species: Rat, male and female
Application Route: Intraperitoneal injection
Exposure time: 798 days
Result: negative

carbon black:
Species: Mouse, female
Application Route: Inhalation
Exposure time: 13.5 month(s)
Dose: 7.5 - 12 mg/m³
Frequency of Treatment: 5 daily
Method: OECD Test Guideline 451
Result: negative

Species: Mouse, male and female
Application Route: Dermal
Exposure time: 18 month(s)
Frequency of Treatment: 3 daily
Result: negative

Species: Rat, female
Application Route: Oral
Exposure time: 24 month(s)
Dose: 52 mg/kg
Frequency of Treatment: 7 daily
Result: negative

Species: Rat, male and female
Application Route: Inhalation
Exposure time: 24 month(s)
Dose: 7,5 - 12,2 mg/m³
Frequency of Treatment: 5 daily
Method: OECD Test Guideline 451
Result: positive
Target Organs: Lungs

Species: Mouse
Application Route: Dermal
Exposure time: 9 - 24 month(s)
Dose: 6 - 60%
Frequency of Treatment: 2 daily
Method: OECD Test Guideline 451
Result: negative

Species: Mouse, male and female
Application Route: Oral
Exposure time: 12 - 18 month(s)
Dose: 10%
Frequency of Treatment: 7 daily
Result: negative

Species: Rat, male and female
Application Route: Inhalation
Exposure time: 24 month(s)
Dose: 2,5 mg/m3
Frequency of Treatment: 16 hr/day, 5 d/wk
Method: OECD Test Guideline 451
Result: positive
Target Organs: Lungs

quartz (SiO_2):
Species: Rat
Application Route: Inhalation
Exposure time: 24 month(s)
Dose: 1 mg/m³
Frequency of Treatment: 6 hour
Result: positive
Target Organs: Lungs

Species: Mouse

Application Route: Inhalation
Exposure time: 24 month(s)
Dose: 1.95 mg/m³
Frequency of Treatment: 8 hour
Result: negative

Components:

carbon black:
Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen
Tumours produced in rats on inhalation of very high concentrations are believed to be the result of prolonged "lung overload" and are not considered relevant to man.

quartz (SiO2):
: Positive evidence from human epidemiological studies (inhalation)

IARC

Group 1: Carcinogenic to humans
quartz (SiO2)
(Silica dust, crystalline)

Group 2B: Possibly carcinogenic to humans
carbon black

ACGIH

Suspected human carcinogen

quartz (SiO2)

Confirmed animal carcinogen with unknown relevance to humans

carbon black

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Effects on fertility : No data available

Effects on foetal development : No data available

Reproductive toxicity - Assessment : No data available

STOT - single exposure

No data available

STOT - repeated exposure

Components:

carbon black:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

quartz (SiO_2):
Exposure routes: inhalation (dust/mist/fume)
Target Organs: Lungs
Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

diiron trioxide:
Species: Rat, male
>= 30 mg/m3
Application Route: inhalation (dust/mist/fume)
Test atmosphere: dust/mist
Exposure time: 5 days

carbon black:
Species: Mouse, male and female
NOEL: > 1000000 mg/kg
Application Route: oral (feed)
Exposure time: 12 - 18 months
Number of exposures: continuously

Species: Rat, females
NOEL: 52 mg/kg
Application Route: oral (feed)
Exposure time: 52 Weeks
Number of exposures: Continously
Dose: 2.05 g/kg

Species: Mouse, females
NOEL: 137 mg/kg
Application Route: oral (feed)
Exposure time: 52 Weeks
Number of exposures: Continously
Dose: 2.05 g/kg
Method: OECD Test Guideline 413

Species: Rat, male and female
LOEC: 2.5 mg/m3
Application Route: inhalation (dust/mist/fume)
Exposure time: 24 Months
Number of exposures: 16 h/day, 5 days/wk
Dose: 2.5 or 6.5 mg/m3
Method: OECD Test Guideline 452
Target Organs: Lungs

Species: Mouse, male and female
Application Route: Dermal

Number of exposures: 3 times/week
Dose: 20%
Symptoms: see user defined free text

Repeated dose toxicity - Assessment : No data available

Aspiration toxicity
No data available

Experience with human exposure
General Information: No data available

Inhalation: No data available

Skin contact: No data available

Eye contact: No data available

Ingestion: No data available

Toxicology, Metabolism, Distribution
No data available

Neurological effects
No data available

Further information
Ingestion: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

diiron trioxide:
Toxicity to fish : EC50 (Brachydanio rerio (zebrafish)): > 50,000 mg/l
Exposure time: 96 h
Test Type: static test

limestone:
Toxicity to fish : LC50: > 56,000 mg/l

Exposure time: 96 h

carbon black:
Toxicity to fish : LC50: > 1,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Components:

diiron trioxide:
Toxicity to daphnia and other aquatic invertebrates : EC50: > 100 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

carbon black:
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 5,600 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202

Components:

diiron trioxide:
Toxicity to algae : EC50 (Other): > 100 mg/l

carbon black:
Toxicity to algae : ErC50: > 10,000 mg/l
Exposure time: 72 h

M-Factor (Acute aquatic toxicity) : No data available

Toxicity to fish (Chronic toxicity) : No data available

Components:

limestone:
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50 (Daphnia magna (Water flea)): > 350 mg/l
Exposure time: 125 d
Test Type: semi-static test
Test substance: Fresh water

M-Factor (Chronic aquatic toxicity) : No data available

Components:

diiron trioxide:
Toxicity to microorganisms : EC50 (activated sludge): > 10,000 mg/l
Exposure time: 3 h
Test Type: static test
Method: ISO 8192

carbon black:
Toxicity to microorganisms : IC0: > 800 mg/l
Exposure time: 3 h

Method: No information available.

Toxicity to soil dwelling organisms	:	No data available
Plant toxicity	:	No data available
Sediment toxicity	:	No data available
Toxicity to terrestrial organisms	:	No data available
Ecotoxicology Assessment Acute aquatic toxicity	:	No data available
Chronic aquatic toxicity	:	No data available
Toxicity Data on Soil	:	No data available
Other organisms relevant to the environment	:	No data available

Persistence and degradability

Biodegradability - Product : Result: Not readily biodegradable.

Components:

diiron trioxide:

Biochemical Oxygen Demand (BOD) : 0 mgO2/g

Components:

diiron trioxide:

Chemical Oxygen Demand (COD)	:	0 mgO2/g
BOD/COD	:	No data available
ThOD	:	No data available
BOD/ThOD	:	No data available
Dissolved organic carbon (DOC)	:	No data available
Physico-chemical removability	:	No data available
Stability in water	:	No data available
Photodegradation	:	No data available
Impact on Sewage Treatment	:	No data available

Bioaccumulative potential

Bioaccumulation - Product : Remarks: Bioaccumulation is unlikely.

Components:

limestone:

Partition coefficient: n-octanol/water : log Pow: < 1
Method: No information available.

Mobility in soil

Mobility : No data available

Distribution among environmental compartments : No data available

Stability in soil : No data available

Other adverse effects

Environmental fate and pathways : No data available

Results of PBT and vPvB assessment : No data available

Endocrine disrupting potential : No data available

Adsorbed organic bound halogens (AOX) : No data available

Hazardous to the ozone layer

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

Global warming potential (GWP) : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA
Not regulated as dangerous goods

IMDG
Not regulated as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations

DOT Classification
Not regulated as dangerous goods

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

dimanganese trioxide	1317-34-6	>= 10 - < 20 %

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

dimanganese trioxide	1317-34-6

California Prop. 65
WARNING: This product can expose you to chemicals including quartz (SiO2), carbon black, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

CH INV : The formulation contains substances listed on the Swiss Inventory, On the inventory, or in compliance with the inventory

DSL	:	All components of this product are on the Canadian DSL
AICS	:	On the inventory, or in compliance with the inventory
NZIoC	:	On the inventory, or in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

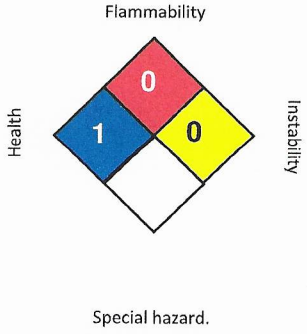
TSCA - 5(a) Significant New Use Rule List of Chemicals
No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

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LABEL CODE : 0003

Sources of key data used to compile the Safety Data Sheet	:	Information taken from reference works and the literature., Information derived from practical experience.
Revision Date	:	11/07/2018
ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	:	8-hour, time-weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-1 / C	:	Ceiling
OSHA Z-3 / TWA	:	8-hour time weighted average

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