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SECTION 1. IDENTIFICATION

Product name : RED IRON OXIDE 10329

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 the OSHA Hazard Communication Standard (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.



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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 : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
diiron trioxide	1309-37-1	60 - 100
quartz (SiO2)	14808-60-7	3 - 7
limestone	1317-65-3	1 - 3
aluminium oxide	1344-28-1	1 - 3

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.



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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



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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.



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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.

No decomposition if stored and applied as directed.

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 particulate matter)	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
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 particulate matter)	0.025 mg/m3 (Silica)	ACGIH
		TWA (Respirable dust)	0.05 mg/m3	OSHA Z-1
limestone	1317-65-3	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
aluminium oxide	1344-28-1	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWÁ (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Respirable	1 mg/m3 (Aluminium)	ACGIH



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particulate matter)

Engineering measures

Maintain air concentrations below occupational exposure

standards.

Personal protective equipment

Respiratory protection : WARNING! 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



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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 : red

Odour : odourless

Odour Threshold : No data is available on the product itself.

pH : 4 - 8Concentration: 10 %

Melting point : > 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

Relative vapour density : Not applicable

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.



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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.

Viscosity

Viscosity, kinematic : Not applicable

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 : The product is chemically stable.

Possibility of hazardous : Stable under recommended storage conditions.

reactions

No hazards to be specially mentioned.

Conditions to avoid : No data available

Incompatible materials : peroxides, for example 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 : LD50 (Rat, male and female): > 5,000 mg/kg

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

toxicityComponents



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aluminium oxide:

: LD50 (Rat, male and female): > 10,000 mg/kg Acute oral

Method: OECD Test Guideline 401 toxicityComponents

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

aluminium oxide:

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.3 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

Acute dermal toxicity : No data available

Acute toxicity (other routes of : No data available

administration)

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

aluminium oxide: Species: Rabbit

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



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limestone: Species: Rabbit

Result: Mechanical irritation of the eyes is possible.

Assessment: No eye irritation

aluminium oxide:
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.

aluminium oxide: Exposure routes: Skin Species: Guinea pig

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 $\mu g/$

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



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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

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

quartz (SiO2): 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:

quartz (SiO2):

Carcinogenicity - : Positive evidence from human epidemiological studies

Assessment (inhalation)

IARC Group 1: Carcinogenic to humans

quartz (SiO2)

(Silica dust, crystalline)

ACGIH Suspected human carcinogen



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quartz (SiO2)

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

Components:

aluminium oxide:

Effects on fertility : Species: Rat, male and female

Application Route: Oral

Dose: 1000 milligram per kilogram Method: OECD Test Guideline 422

Result: Animal testing did not show any effects on fertility.

Components:

aluminium oxide:

Effects on foetal : Species: Rat

development Application Route: Oral

General Toxicity Maternal: No observed adverse effect level:

266 mg/kg body weight

Method: OECD Test Guideline 414 Result: No teratogenic effects

Reproductive toxicity -

Assessment

: No data available

STOT - single exposure

No data available

STOT - repeated exposure

Components:

quartz (SiO2):

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



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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

aluminium oxide:

Toxicity to fish : LC50 (Fish): > 50 mg/l

Exposure time: 96 h
Test Type: static test
Test substance: Fresh water



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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

aluminium oxide:

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Components:

diiron trioxide:

Toxicity to algae/aquatic

plants

aluminium oxide:

Toxicity to algae/aquatic

plants

: IC50 (Selenastrum capricornutum (green algae)): > 100 mg/l

Exposure time: 72 h

: EC50 (Other): > 100 mg/l

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

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



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Ecotoxicology Assessment

Components:

aluminium oxide:

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Components:

aluminium oxide:

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

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

No data available **ThOD**

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-: log Pow: < 1



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octanol/water 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.



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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

CERCLA Reportable Quantity

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

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop. 65

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

WARNING: This product can expose you to chemicals including Arsenic (As), Cadmium (Cd), Chromium VI (Cr6+), Cobalt (Co), Lead (Pb), Mercury (Hg) and Nickel (Ni), present as trace impurities and not intentionally added, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

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

CH INV : On the inventory, or in compliance with the inventory

DSL : This product contains one or several components listed in the

Canadian NDSL.

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



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IECSC : On the inventory, or in compliance with the inventory TCSI : On the inventory, or in compliance with the inventory TSCA : All substances listed as active on the TSCA inventory

Inventories

AICS (Australia), AIIC (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.

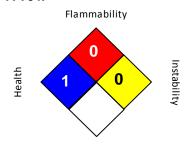
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Special hazard

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.

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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-3 / TWA : 8-hour time weighted average

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