1 Identification

Product identifier

Trade name: MANTACRYL 405 Polar White Roof Coating

Other means of identification: No other identifiers

Recommended use: Roof coating, roof paint.
Restrictions on use: No relevant information available.

Details of the supplier of the Safety Data Sheet:

Manufacturer/Supplier:
Manta Roofing Products
1200 SE 20th St. Ft. Lauderdale, FL 33316
786-390-240 www.mantaroof.com
info@mantaroof.com

Emergency telephone number:
ChemTel
(800) 255-3924

2 Hazard(s) identification

· Classification of the substance or mixture

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT RE 2 H373 May cause damage to the nervous system through prolonged or repeated exposure.

· Label elements
· GHS label elements
The product is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms:

GHS08

· Signal word: Warning
· Hazard statements:

H351	Suspected of causing cancer.
H317	May cause an allergic skin reaction.
H373	May cause damage to the nervous system through prolonged or repeated exposure. ·

Precautionary statements:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood
P280	Wear protective gloves/protective clothing/eye protection.
P302+P352	If on skin: Wash with plenty of soap and water.
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use foam, powder, or carbon dioxide
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· Other hazards There are no other hazards not otherwise classified that have been identified.

Additional information:
Non-classification as a carcinogen is based on non-inhalable form of product. IARC listings for TiO2 note that the substance must be respirable.
For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements, refer to section 16.

Name	Product identifier	%	GHS-US classification
latex,liquid,synthetic		36 - 45	Not classified
Water	(CAS No) 7732-18-5	16 - 25	Not classified
titanium(IV) oxide	(CAS No) 13463-67-7	0 - 10	Carc. 2, H351
mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)	(CAS No) 55965-84-9	0.01 - 0.03	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-octyl-2H-isothiazol-3-one	(CAS No) 26530-20-1	0.01 - 0.03	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

4 First-aid measures

· Description of first aid measures
· After inhalation:
Supply fresh air; consult doctor in case of complaints.
Respiration of particulates is unlikely during normal usage.
· After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation or rash occurs: Get medical advice/attention.
· After eye contact:
Remove contact lenses if worn, if possible.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· After swallowing:
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
· Most important symptoms and effects, both acute and delayed :
Nausea in case of ingestion.
Gastric or intestinal disorders when ingested.
Allergic reactions
· Danger: May cause damage to the nervous system through prolonged or repeated exposure.
· Indication of any immediate medical attention and special treatment needed:
Treat symptomatically.
Treat skin and mucous membrane with antihistamine and corticoid preparations.

5 Fire-fighting measures

· Extinguishing media
· Suitable extinguishing agents:
CO2, extinguishing powder or water spray. Fight lar ger fires with water spray.
· For safety reasons unsuitable extinguishing agents: Water stream.
· Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
· Advice for firefighters
· Protective equipment:
Wear self-contained respiratory protective device.
Wear a fully protective suit.
· Additional information: Cool endangered product with water spray.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation.
Avoid formation of dust.
Avoid breathing dust.
Use personal protective equipment as required.
Protect from heat
Remove ignition sources.
Take precautionary measures against static discharge .
· Environmental precautions Avoid release to the environment.
· Methods and material for containment and cleaning u p
Towel or mop up material and collect in a suitable container.
For large spills, absorb non-combustible liquid d-binding material (sand, diatomite, acid binders, universal binders).
Send for recovery or disposal in suitable receptacle s.
· Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· Handling
· Precautions for safe handling: Use only in well-ventilated areas. Avoid contact with the eyes and skin.
Open and handle receptacle with care.
Avoid breathing dust.
· Information about protection against explosions and fires:
Combustible liquid.
Keep ignition sources away.
Protect against electrostatic charges.

· Conditions for safe storage, including any incompatibilities
· Requirements to be met by storerooms and receptacle s:
Avoid storage near extreme heat, ignition sources or open flames. Store in cool, dry conditions in well-sealed receptacles.
· Information about storage in one common storage facility:
Store away from foodstuffs.
Store away from oxidizing agents.
· Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

13463-67-7 Titanium dioxide

PEL (USA)	Long-term value: 15* mg/m³ *total dust
REL (USA)	See Pocket Guide App. A
TLV (USA)	Long-term value: 10 mg/m³
EL (Canada)	Long-term value: 10* 3** mg/m³ *Total dust;**respirable fraction; IARC 2B
EV (Canada)	Long-term value: 10 mg/m³ total dust
LMPE (Mexico)	Long-term value: 10 mg/m³ A4

· Exposure controls

· General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid close or long-term contact with the skin.
Avoid breathing dust.

· Engineering controls: No relevant information available.

· Breathing equipment:
Not required under normal conditions of use.

Use suitable respiratory protective device in case of insufficient ventilation.
A NIOSH approved dust respirator should be used for operations generating dust.
For large spills, respiratory protection may be advisable

· Protection of hands:

Protective gloves

Gloves are advised for repeated or prolonged contact .
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Eye protection:

Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· Body protection: Protective work clothing

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9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:	
Form: Liquid	Color: Light Blue
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value:	>8.4
· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	≥92 °C (≥196.6 °F)
· Flash point:	≥92 °C (≥197.6 °F)
· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	~1.38
Vapor density:	Not determined.
Evaporation rate:	Not determined.

(Cont'd. on page 6)

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· Solubility in / Miscibility with Water:	Soluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· VOC content:	<50 g/L
· Other information	No relevant information available.

10 Stability and reactivity

· Reactivity: No relevant information available.
· Chemical stability: Stable under normal temperatures and pressures.
· Thermal decomposition / conditions to be avoided:
No decomposition if used and stored according to specifications.
· Possibility of hazardous reactions No dangerous reactions known.
· Conditions to avoid
Excessive heat.
Prevent formation of dust.
· Incompatible materials No relevant information available.
· Hazardous decomposition products
Under fire conditions only:
Carbon monoxide and carbon dioxide

11 Toxicological information

Acute toxicity : Not classified

titanium(IV) oxide (13463-67-7)	
LD50 oral rat	> 10000 mg/kg (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value; > 5000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	> 6.8 mg/l/4h (Rat; Experimental value)

2-octyl-2H-isothiazol-3-one (26530-20-1)	
LD50 oral rat	550 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	690 mg/kg bodyweight (Rabbit, Literature study, Dermal)
LC50 inhalation rat (mg/l)	> 2 mg/m³ (4 h, Rat, Literature study, Inhalation (vapours))
ATE US (oral)	550.000 mg/kg bodyweight
ATE US (dermal)	690.000 mg/kg bodyweight
ATE US (gases)	700.000 ppmv/4h
ATE US (vapours)	3.000 mg/l/4h
ATE US (dust,mist)	0.500 mg/l/4h

mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)	
LD50 oral rat	53 mg/kg (Rat; Literature study)
ATE US (oral)	53.000 mg/kg bodyweight
ATE US (dermal)	300.000 mg/kg bodyweight
ATE US (dust,mist)	0.500 mg/l/4h

· Information on toxicological effects
· Acute toxicity: Based on available data, the classification criteria are not met.
· LD/LC50 values that are relevant for classification : None.
· Primary irritant effect:
· On the skin: Based on available data, the classification criteria are not met.
· On the eye: Based on available data, the classification criteria are not met.
· Sensitization: Sensitization possible through skin contact.
· IARC (International Agency for Research on Cancer):
Reference to chemical component(s) listed below are based on unbound respirable particles and are not generally applicable to product as supplied.

13463-67-7 Titanium dioxide	2B
14808-60-7 Quartz	1

· NTP (National Toxicology Program):
Present in trace quantities.

14808-60-7 Quartz

· OSHA-Ca (Occupational Safety & Health Administration

None of the ingredients are listed.

· Probable route(s) of exposure:
Ingestion.
Eye contact.
Skin contact.
· Germ cell mutagenicity: Based on available data, the classification criteria are not met.
· Carcinogenicity:
Contains known or suspected carcinogens when inhaled. Product is in non-inhalable form and is no classifiable as a carcinogen.
· Reproductive toxicity: Based on available data, the classification criteria are not met.
· STOT-single exposure: Based on available data, the classification criteria are not met.
· STOT-repeated exposure:
May cause damage to the nervous system through prolonged or repeated exposure.
· Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

· Toxicity
· Aquatic toxicity No relevant information available.
· Persistence and degradability No relevant information available.
· Bio accumulative potential: No relevant information available.
· Mobility in soil: No relevant information available.
· Other adverse effects No relevant information available.

13 Disposal considerations

· Waste treatment methods
· Recommendation:
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and container s in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage a nd disposal for hazardous and nonhazardous wastes.

· Uncleaned packaging
· Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number
· DOT NA1993
· ADR/RID/ADN, IMDG, IATA Not regulated.

· UN proper shipping name

In accordance with DOT
Transport document description : Not Regulated (Water Based Material - KEEP FROM FREEZING)
UN-No.(DOT) : Not Regulated (Water Based Material - KEEP FROM FREEZING)

· DOT Combustible liquid, n.o.s. (3-(trimethoxysilyl) propylamine)
· ADR/RID/ADN, IMDG, IATA Not regulated.

· Transport hazard class(es)

· DOT

· Class Not regulated.
· Label Not regulated.

· ADR/RID/ADN, IMDG, IATA Not regulated.
· Class

· Packing group
· DOT Not regulated.
· ADR/RID/ADN, IMDG, IATA

· Environmental hazards No
· Marine pollutant:

· Special precautions for user Not applicable.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· DOT Classified as combustible under US DOT regulations. Labeling is only required for single packages ≥119 US gal / 450 L.

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· United States (USA)
· SARA
· Section 302 (extremely hazardous substances):
None of the ingredients are listed.
· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.
· TSCA (Toxic Substances Control Act)
All ingredients are listed or exempt.
· Proposition 65 (California)
· Chemicals known to cause cancer:

Reference to chemical component(s) listed below are based on unbound respirable particles and are not generally applicable to product as supplied.
Present in trace quantities: quartz, talc.
13463-67-7 Titanium dioxide
14807-96-6 Talc
14808-60-7 Quartz
· Chemicals known to cause developmental toxicity for females:
None of the ingredients are listed.
· Chemicals known to cause developmental toxicity for males:
None of the ingredients are listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients are listed.
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· IARC (International Agency for Research on Cancer):
Reference to chemical component(s) listed below are based on unbound respirable particles and are not generally applicable to product as supplied.
13463-67-7 Titanium dioxide 2B
14808-60-7 Quartz 1
· Canadian Domestic Substances List (DSL):
All ingredients are listed or exempt.

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16 Other information

This information is based on our present knowledge. H owever, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:
ADR: European Agreement concerning the International Ca rriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
OSHA: Occupational Safety & Health Administration
Flam. Liq. 4: Flammable liquids – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Cate gory 2A
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1B: Skin sensitisation – Category 1B
STOT RE 2: Specific target organ toxicity (repeated expos ure) – Category 2

· Sources
Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub. epa.gov/sor internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: