



## Malibu EXT (SG) 486XX Series

### ICP Construction

Version No: 4.7

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

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S.GHS.USA.EN

## SECTION 1 IDENTIFICATION

### Product Identifier

Product name	Malibu EXT (SG) 486XX Series
Synonyms	Not Available
Other means of identification	Not Available

### Recommended use of the chemical and restrictions on use

Relevant identified uses	Exterior Latex House Paint
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### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	ICP Construction
Address	150 Dascomb Road Massachusetts Andover United States
Telephone	978-623-9980
Fax	Not Available
Website	Not Available
Email	Not Available

### Emergency phone number

Association / Organisation	Chemtel
Emergency telephone numbers	1-800-255-3924
Other emergency telephone numbers	1-813-248-0585

## SECTION 2 HAZARD(S) IDENTIFICATION

### Classification of the substance or mixture

Classification	Germ cell mutagenicity Category 1B, Reproductive Toxicity Category 1B, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3
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### Label elements

GHS label elements	
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SIGNAL WORD **DANGER**

### Hazard statement(s)

H340	May cause genetic defects.
H360	May damage fertility or the unborn child.
H412	Harmful to aquatic life with long lasting effects.

### Hazard(s) not otherwise specified

Not Applicable

### Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P281	Use personal protective equipment as required.
P273	Avoid release to the environment.

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**Precautionary statement(s) Response**

P308+P313	IF exposed or concerned: Get medical advice/attention.
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**Precautionary statement(s) Storage**

P405	Store locked up.
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**Precautionary statement(s) Disposal**

P501	Dispose of contents/container in accordance with local regulations.
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**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
13463-67-7	20-30	<u>titanium dioxide</u>
57-55-6	3-7	<u>propylene glycol</u>
10605-21-7	0.1-2	<u>carbendazim</u>
55406-53-6	0.1-1	<u>3-iodo-2-propynyl butyl carbamate</u>
9003-31-0	10-15	<u>isoprene homopolymer</u>
7732-18-5	10-15	<u>water</u>

**SECTION 4 FIRST-AID MEASURES****Description of first aid measures**

<b>Eye Contact</b>	<p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with water.</li> <li>▶ If irritation continues, seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ Immediately give a glass of water.</li> <li>▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

**Most important symptoms and effects, both acute and delayed**

See Section 11

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5 FIRE-FIGHTING MEASURES****Extinguishing media**

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).

**Special hazards arising from the substrate or mixture**

<b>Fire Incompatibility</b>	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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**Special protective equipment and precautions for fire-fighters**

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> </ul>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> </ul> <p>Combustion products include:</p> <ul style="list-style-type: none"> <li>· carbon dioxide (CO<sub>2</sub>)</li> <li>· other pyrolysis products typical of burning organic material.</li> </ul> <p>May emit poisonous fumes. May emit corrosive fumes.</p>

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

### Methods and material for containment and cleaning up

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> </ul>
<b>Major Spills</b>	<p>Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ No smoking, naked lights or ignition sources.</li> </ul>

### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>▶ Glycols and their ethers undergo violent decomposition in contact with 70% perchloric acid. This seems likely to involve formation of the glycol perchlorate esters (after scission of ethers) which are explosive, those of ethylene glycol and 3-chloro-1,2-propanediol being more powerful than glyceryl nitrate, and the former so sensitive that it explodes on addition of water.</li> <li>Titanium dioxide <ul style="list-style-type: none"> <li>▶ reacts with strong acids, strong oxidisers</li> <li>▶ reacts violently with aluminium, calcium, hydrazine, lithium (at around 200 deg C.), magnesium, potassium, sodium, zinc, especially at elevated temperatures - these reactions involves reduction of the oxide and are accompanied by incandescence</li> <li>▶ dust or powders can ignite and then explode in a carbon dioxide atmosphere</li> <li>▶ <b>WARNING: Avoid or control reaction with peroxides. All transition metal peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively.</b></li> <li>▶ Avoid reaction with oxidising agents</li> </ul> </li> </ul>

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Levels (PELs) - Table Z1	titanium dioxide	Titanium dioxide	15 mg/m <sup>3</sup>	Not Available	Not Available	Total dust
US ACGIH Threshold Limit Values (TLV)	titanium dioxide	Titanium dioxide	10 mg/m <sup>3</sup>	Not Available	Not Available	TLV® Basis: LRT irr
US NIOSH Recommended Exposure Limits (RELs)	titanium dioxide	Rutile, Titanium oxide, Titanium peroxide	Not Available	Not Available	Not Available	Ca See Appendix A


#### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
titanium dioxide	Titanium oxide; (Titanium dioxide)	30 mg/m <sup>3</sup>	330 mg/m <sup>3</sup>	2,000 mg/m <sup>3</sup>
propylene glycol	Propylene glycol; (1,2-Propanediol)	30 mg/m <sup>3</sup>	1,300 mg/m <sup>3</sup>	7,900 mg/m <sup>3</sup>
3-iodo-2-propynyl butyl carbamate	Butyl-3-iodo-2-propynylcarbamate	3.3 mg/m <sup>3</sup>	36 mg/m <sup>3</sup>	220 mg/m <sup>3</sup>

Ingredient	Original IDLH	Revised IDLH
titanium dioxide	N.E. mg/m <sup>3</sup> / N.E. ppm	5,000 mg/m <sup>3</sup>
propylene glycol	Not Available	Not Available
carbendazim	Not Available	Not Available

3-iodo-2-propynyl butyl carbamate	Not Available	Not Available
isoprene homopolymer	Not Available	Not Available
water	Not Available	Not Available

### Exposure controls

<b>Appropriate engineering controls</b>	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk.
<b>Personal protection</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> </ul>
<b>Thermal hazards</b>	Not Available

### Respiratory protection

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class 1	-
up to 50	1000	-	A-AUS / Class 1
up to 50	5000	Airline *	-
up to 100	5000	-	A-2
up to 100	10000	-	A-3
100+		-	Airline**

\* - Continuous Flow

\*\* - Continuous-flow or positive pressure demand.

A(All classes) = Organic vapours, B AUS or B1 = Acid gases, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 deg C)

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Text		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	8.5	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	Not Available	<b>Taste</b>	Not Available

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Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

### SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

### SECTION 11 TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion	<p>Ingestion of propylene glycol produced reversible central nervous system depression in humans following ingestion of 60 ml. Symptoms included increased heart-rate (tachycardia), excessive sweating (diaphoresis) and grand mal seizures in a 15 month child who ingested large doses (7.5 ml/day for 8 days) as an ingredient of vitamin preparation.</p> <p>Excessive repeated ingestions may cause hypoglycaemia (low levels of glucose in the blood stream) among susceptible individuals; this may result in muscular weakness, incoordination and mental confusion.</p> <p>The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.</p> <p>Dusts of titanium and titanium compounds are thought to exhibit little or no toxic effects.</p>
Skin Contact	<p>Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.</p> <p>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Chronic	<p>Studies show that inhaling this substance for over a long period (e.g. in an occupational setting) may increase the risk of cancer.</p> <p>Inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>Based on experiments and other information, there is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited.</p> <p>Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to the material.</p> <p>There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.</p> <p>There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.</p>

Malibu EXT (SG) 486XX Series	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
titanium dioxide	<b>TOXICITY</b>	<b>IRRITATION</b>
	Inhalation (rat) LC50: >2.28 mg/l/4hr <sup>[1]</sup>	Skin (human): 0.3 mg /3D (int)-mild *
	Inhalation (rat) LC50: >3.56 mg/l/4hr <sup>[1]</sup>	
	Inhalation (rat) LC50: >6.82 mg/l/4hr <sup>[1]</sup>	
	Inhalation (rat) LC50: 3.43 mg/l/4hr <sup>[1]</sup>	
	Inhalation (rat) LC50: 5.09 mg/l/4hr <sup>[1]</sup>	
propylene glycol	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): 100 mg - mild
	Oral (rat) LD50: 20000 mg/kg <sup>[2]</sup>	Eye (rabbit): 500 mg/24h - mild
		Skin(human):104 mg/3d Intermit Mod
		Skin(human):500 mg/7days mild

carbendazim	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: 2000 mg/kg <sup>[2]</sup>	Eye (rabbit): non-irritating *
	Oral (rat) LD50: 6400 mg/kg <sup>[2]</sup>	Skin (rabbit): non-irritating *
3-iodo-2-propynyl butyl carbamate	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[2]</sup>	Eye: Irritating
	Inhalation (rat) LC50: 0.680 mg/l/4hr <sup>+[2]</sup>	Skin: Slight irritant
	Oral (rat) LD50: 1056 mg/kg <sup>[2]</sup>	
isoprene homopolymer	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
water	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: >90000 mg/kg <sup>[2]</sup>	Not Available

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

<b>TITANIUM DIOXIDE</b>	<p>The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Exposure to titanium dioxide is via inhalation, swallowing or skin contact. When inhaled, it may deposit in lung tissue and lymph nodes causing dysfunction of the lungs and immune system. Absorption by the stomach and intestines depends on the size of the particle.</p> <p><b>WARNING:</b> This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.</p> <p>* IUCLID</p>
<b>PROPYLENE GLYCOL</b>	<p>The acute oral toxicity of propylene glycol is very low, and large quantities are required to cause perceptible health damage in humans. Serious toxicity generally occurs only at plasma concentrations over 1 g/L, which requires extremely high intake over a relatively short period of time. It would be nearly impossible to reach toxic levels by consuming foods or supplements, which contain at most 1 g/kg of PG.</p>
<b>CARBENDAZIM</b>	<p>Benomyl (a precursor of carbendazim) sensitises skin in humans. Benomyl and carbendazim represent a very low risk for acute poisoning in humans. Carbendazim has low acute toxicity and is excreted in the urine.</p> <p>[* The Pesticides Manual, Incorporating The Agrochemicals Handbook, 10th Edition, Editor Clive Tomlin, 1994, British Crop Protection Council]</p> <p>Intraperitoneal (Rat, adult male) LD50: 7320 mg/kg * Intraperitoneal (Rat, adult female) LD50: 15000 mg/kg * Inhalation LC50 (4 h) for rats, rabbits, guinea pigs or cats no effect with suspension (10 g/l water). * NOEL (2 y) for dogs 300 mg/kg diet, corresponding to 6-7 mg/kg b.w. ADI 0.01 mg/kg b.w. * Toxicity Class WHO III; EPA IV</p>
<b>3-iodo-2-propynyl BUTYL CARBAMATE</b>	<p>For 3-iodo-2-propynyl butyl carbamate (IPBC):</p> <p>Acute toxicity studies with IPBC show low toxicity except severe eye irritation. Animal testing showed that extended exposure may cause decreased weight gain and increased red cell and eosinophil counts. One study showed the possibility of increased breast cancer on extended contact.</p>
<b>TITANIUM DIOXIDE &amp; PROPYLENE GLYCOL</b>	<p>The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.</p>
<b>ISOPRENE HOMOPOLYMER &amp; WATER</b>	<p>No significant acute toxicological data identified in literature search.</p>

<b>Acute Toxicity</b>	☒	<b>Carcinogenicity</b>	☒
<b>Skin Irritation/Corrosion</b>	☒	<b>Reproductivity</b>	✓
<b>Serious Eye Damage/Irritation</b>	☒	<b>STOT - Single Exposure</b>	☒
<b>Respiratory or Skin sensitisation</b>	☒	<b>STOT - Repeated Exposure</b>	☒
<b>Mutagenicity</b>	✓	<b>Aspiration Hazard</b>	☒

**Legend:** ✗ – Data available but does not fill the criteria for classification  
 ✓ – Data available to make classification  
 ☒ – Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
titanium dioxide	LC50	96	Fish	9.214mg/L	3
titanium dioxide	EC50	48	Crustacea	>10mg/L	2
titanium dioxide	EC50	72	Algae or other aquatic plants	5.83mg/L	4
titanium dioxide	EC20	72	Algae or other aquatic plants	1.81mg/L	4
titanium dioxide	NOEC	336	Fish	0.089mg/L	4
propylene glycol	LC50	96	Fish	710mg/L	4
propylene glycol	EC50	48	Crustacea	>1000mg/L	4
propylene glycol	EC50	96	Algae or other aquatic plants	10905.921mg/L	3
propylene glycol	EC50	384	Crustacea	311.145mg/L	3
propylene glycol	NOEC	168	Fish	98mg/L	4

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carbendazim	LC50	96	Fish	0.007mg/L	4
carbendazim	EC50	48	Crustacea	0.02mg/L	4
carbendazim	EC50	96	Algae or other aquatic plants	3.945mg/L	3
carbendazim	EC50	24	Crustacea	0.0035mg/L	4
carbendazim	NOEC	480	Crustacea	<0.0031mg/L	4
3-iodo-2-propynyl butyl carbamate	LC50	96	Fish	0.067mg/L	4
3-iodo-2-propynyl butyl carbamate	EC50	48	Crustacea	0.04mg/L	5
3-iodo-2-propynyl butyl carbamate	EC50	96	Algae or other aquatic plants	1.978mg/L	3
3-iodo-2-propynyl butyl carbamate	EC50	96	Crustacea	0.0234mg/L	4
3-iodo-2-propynyl butyl carbamate	NOEC	48	Crustacea	<0.01mg/L	4
isoprene homopolymer	LC50	96	Fish	4.364mg/L	3
isoprene homopolymer	EC50	96	Algae or other aquatic plants	10.375mg/L	3
isoprene homopolymer	EC50	384	Crustacea	1.061mg/L	3

**Legend:**

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Propylene glycol is known to exert high levels of biochemical oxygen demand (BOD) during degradation in surface waters. This process can adversely affect aquatic life by consuming oxygen needed by aquatic organisms for survival. Large quantities of dissolved oxygen (DO) in the water column are consumed when microbial populations decompose propylene glycol.

**DO NOT discharge into sewer or waterways.**

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
titanium dioxide	HIGH	HIGH
propylene glycol	LOW	LOW
carbendazim	HIGH	HIGH
3-iodo-2-propynyl butyl carbamate	HIGH	HIGH
isoprene homopolymer	LOW	LOW
water	LOW	LOW

**Bioaccumulative potential**

Ingredient	Bioaccumulation
titanium dioxide	LOW (BCF = 10)
propylene glycol	LOW (BCF = 1)
carbendazim	LOW (BCF = 3.5)
3-iodo-2-propynyl butyl carbamate	LOW (LogKOW = 2.4542)
isoprene homopolymer	LOW (LogKOW = 2.5803)
water	LOW (LogKOW = -1.38)

**Mobility in soil**

Ingredient	Mobility
titanium dioxide	LOW (KOC = 23.74)
propylene glycol	HIGH (KOC = 1)
carbendazim	LOW (KOC = 175.8)
3-iodo-2-propynyl butyl carbamate	LOW (KOC = 365.3)
isoprene homopolymer	LOW (KOC = 67.7)
water	LOW (KOC = 14.3)

**SECTION 13 DISPOSAL CONSIDERATIONS****Waste treatment methods****Product / Packaging disposal**

- ▶ Containers may still present a chemical hazard/ danger when empty.
- ▶ Return to supplier for reuse/ recycling if possible.

Continued...

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### Otherwise:

- ▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

- ▶ **DO NOT allow wash water from cleaning or process equipment to enter drains.**
- ▶ It may be necessary to collect all wash water for treatment before disposal.
- ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- ▶ Recycle wherever possible or consult manufacturer for recycling options.
- ▶ Consult State Land Waste Authority for disposal.
- ▶ Bury or incinerate residue at an approved site.

## SECTION 14 TRANSPORT INFORMATION

### Labels Required

Marine Pollutant	NO

**Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

## SECTION 15 REGULATORY INFORMATION

### Safety, health and environmental regulations / legislation specific for the substance or mixture

#### TITANIUM DIOXIDE(13463-67-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs	US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
US - Alaska Limits for Air Contaminants	US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
US - California Permissible Exposure Limits for Chemical Contaminants	US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants
US - California Proposition 65 - Carcinogens	US - Washington Permissible exposure limits of air contaminants
US - Hawaii Air Contaminant Limits	US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
US - Idaho - Limits for Air Contaminants	US ACGIH Threshold Limit Values (TLV)
US - Massachusetts - Right To Know Listed Chemicals	US ACGIH Threshold Limit Values (TLV) - Carcinogens
US - Michigan Exposure Limits for Air Contaminants	US NIOSH Recommended Exposure Limits (RELs)
US - Minnesota Permissible Exposure Limits (PELs)	US OSHA Permissible Exposure Levels (PELs) - Table Z1
US - Oregon Permissible Exposure Limits (Z-1)	US Priority List for the Development of Proposition 65 Safe Harbor Levels - No Significant Risk Levels (NSRLs) for Carcinogens and Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity
US - Pennsylvania - Hazardous Substance List	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Rhode Island Hazardous Substance List	

#### PROPYLENE GLYCOL(57-55-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Pennsylvania - Hazardous Substance List	US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)
US - Rhode Island Hazardous Substance List	US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants
US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US AIHA Workplace Environmental Exposure Levels (WEELs)	

#### CARBENDAZIM(10605-21-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory	
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#### 3-IODO-2-PROPYNYL BUTYL CARBAMATE(55406-53-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US EPCRA Section 313 Chemical List	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
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#### ISOPRENE HOMOPOLYMER(9003-31-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
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#### WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Pennsylvania - Hazardous Substance List	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
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### Federal Regulations

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### SECTION 311/312 HAZARD CATEGORIES

Immediate (acute) health hazard	No
Delayed (chronic) health hazard	Yes
Fire hazard	No
Pressure hazard	No
Reactivity hazard	No

#### US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)



Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10	4.54

### State Regulations

#### US. CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

#### US - CALIFORNIA PREPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE

Titanium dioxide (airborne, unbound particles of respirable size) Listed

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (3-iodo-2-propynyl butyl carbamate; isoprene homopolymer; propylene glycol; water; carbendazim)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (isoprene homopolymer)
Japan - ENCS	N (water)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
<b>Legend:</b>	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

### SECTION 16 OTHER INFORMATION

#### CONTACT POINT

\*\*PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES\*\*

#### Other information

#### Ingredients with multiple cas numbers

Name	CAS No
titanium dioxide	13463-67-7, 1317-70-0, 1317-80-2, 12188-41-9, 1309-63-3, 100292-32-8, 101239-53-6, 116788-85-3, 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1344-29-2, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1, 195740-11-5, 221548-98-7, 224963-00-2, 246178-32-5, 252962-41-7, 37230-92-5, 37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7, 416845-43-7, 494848-07-6, 494848-23-6, 494851-77-3, 494851-98-8, 55068-84-3, 55068-85-4, 552316-51-5, 62338-64-1, 767341-00-4, 97929-50-5, 98084-96-9
isoprene homopolymer	9003-31-0, 104389-31-3, 104389-32-4

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

#### Definitions and abbreviations

PC – TWA: Permissible Concentration-Time Weighted Average  
 PC – STEL: Permissible Concentration-Short Term Exposure Limit  
 IARC: International Agency for Research on Cancer  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 STEL: Short Term Exposure Limit  
 TEEL: Temporary Emergency Exposure Limit,  
 IDLH: Immediately Dangerous to Life or Health Concentrations  
 OSF: Odour Safety Factor  
 NOAEL :No Observed Adverse Effect Level  
 LOAEL: Lowest Observed Adverse Effect Level  
 TLV: Threshold Limit Value  
 LOD: Limit Of Detection  
 OTV: Odour Threshold Value  
 BCF: BioConcentration Factors  
 BEI: Biological Exposure Index

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