



## Zone Marking Paint - Yellow F10885

### ICP Construction

Version No: 2.2

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	Zone Marking Paint - Yellow F10885
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified uses	Use according to manufacturer's directions.
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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	Eye Irritation Category 2A, Specific target organ toxicity - repeated exposure Category 2
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### Label elements

GHS label elements	
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SIGNAL WORD	<b>WARNING</b>
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### Hazard statement(s)

H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

### Hazard(s) not otherwise specified

Not Applicable

### Precautionary statement(s) Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Continued...

**Precautionary statement(s) Response**

<b>P305+P351+P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P314</b>	Get medical advice/attention if you feel unwell.
<b>P337+P313</b>	If eye irritation persists: Get medical advice/attention.

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

<b>P501</b>	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
1317-70-0		<u>titanium dioxide (anatase)</u>
7732-18-5	30.1-50.1	<u>water</u>
107-21-1	2	<u>ethylene glycol</u>
7631-86-9	NotSpec.	<u>silica amorphous</u>
26172-55-4	<0.01	<u>5-chloro-2-methyl-4-isothiazolin-3-one</u>
2682-20-4	<0.01	<u>2-methyl-4-isothiazolin-3-one</u>
7786-30-3	<0.01	<u>magnesium chloride</u>
13446-18-9	<0.01	<u>magnesium nitrate</u>
127087-87-0	0.39	<u>mono-p-nonylphenyl ether, branched, ethoxylated</u>
51274-00-1	1.7	<u>C.I. Pigment Yellow 42</u>
14808-60-7	10	<u>silica crystalline - quartz</u>

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

<b>Eye Contact</b>	<ul style="list-style-type: none"> <li>▶ Generally not applicable.</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 or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor, without delay.</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.

For acute or short term repeated exposures to ethylene glycol:

- ▶ Early treatment of ingestion is important. Ensure emesis is satisfactory.
- ▶ Test and correct for metabolic acidosis and hypocalcaemia.
- ▶ Apply sustained diuresis when possible with hypertonic mannitol.
- ▶ Evaluate renal status and begin haemodialysis if indicated. [I.L.O]
- ▶ Rapid absorption is an indication that emesis or lavage is effective only in the first few hours. Cathartics and charcoal are generally not effective.
- ▶ Correct acidosis, fluid/electrolyte balance and respiratory depression in the usual manner. Systemic acidosis (below 7.2) can be treated with intravenous sodium bicarbonate solution.
- ▶ Ethanol therapy prolongs the half-life of ethylene glycol and reduces the formation of toxic metabolites.
- ▶ Pyridoxine and thiamine are cofactors for ethylene glycol metabolism and should be given (50 to 100 mg respectively) intramuscularly, four times per day for 2 days.
- ▶ Magnesium is also a cofactor and should be replenished. The status of 4-methylpyrazole, in the treatment regime, is still uncertain. For clearance of the material and its metabolites, haemodialysis is much superior to peritoneal dialysis.

[Ellenhorn and Barceloux: Medical Toxicology]

It has been suggested that there is a need for establishing a new biological exposure limit before a workshift that is clearly below 100 mmol ethoxy-acetic acids per mole creatinine in morning urine of people occupationally exposed to ethylene glycol ethers. This arises from the finding that an increase in urinary stones may be associated with such exposures.

Laitinen J., et al: *Occupational & Environmental Medicine* 1996; 53, 595-600**SECTION 5 FIRE-FIGHTING MEASURES**

**Extinguishing media**

- ▶ There is no restriction on the type of extinguisher which may be used.
- ▶ Use extinguishing media suitable for surrounding area.

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

<b>Fire Incompatibility</b>	None known.
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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 breathing apparatus plus protective gloves in the event of a fire.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ Use fire fighting procedures suitable for surrounding area.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> <li>▶ Equipment should be thoroughly decontaminated after use.</li> </ul> <p>Slight hazard when exposed to heat, flame and oxidisers.</p>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Non combustible.</li> <li>▶ Not considered a significant fire risk, however containers may burn.</li> </ul> <p>silicon dioxide (SiO<sub>2</sub>) 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>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>▶ Wipe up.</li> <li>▶ Place in a suitable, labelled container for waste disposal.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Secure load if safe to do so.</li> <li>▶ Bundle/collect recoverable product.</li> <li>▶ Collect remaining material in containers with covers for disposal.</li> </ul>
<b>Major Spills</b>	<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> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by all means available, spillage from entering drains or water courses.</li> <li>▶ Consider evacuation (or protect in place).</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Water spray or fog may be used to disperse / absorb vapour.</li> <li>▶ Contain or absorb spill with sand, earth or vermiculite.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> <li>▶ Minor hazard.</li> <li>▶ Clear area of personnel.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear physical protective gloves e.g. Leather.</li> <li>▶ Contain spill/secure load if safe to do so.</li> <li>▶ Bundle/collect recoverable product and label for recycling.</li> <li>▶ Collect remaining product and place in appropriate containers for disposal.</li> <li>▶ Clean up/sweep up area.</li> <li>▶ Water may be required.</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>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ <b>DO NOT allow material to contact humans, exposed food or food utensils.</b></li> <li>▶ Avoid contact with incompatible materials.</li> </ul>
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	<ul style="list-style-type: none"> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately. Launder contaminated clothing before re-use.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▶ Store away from incompatible materials.</li> </ul>

**Conditions for safe storage, including any incompatibilities**

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▶ Polyethylene or polypropylene container.</li> <li>▶ Packing as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<p>Silicas:</p> <ul style="list-style-type: none"> <li>▶ react with hydrofluoric acid to produce silicon tetrafluoride gas</li> <li>▶ react with xenon hexafluoride to produce explosive xenon trioxide</li> <li>▶ reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride (these halogenated materials are not commonplace industrial materials) and other fluorine-containing compounds</li> <li>▶ may react with fluorine, chlorates</li> <li>▶ are incompatible with strong oxidisers, manganese trioxide, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid, vinyl acetate</li> <li>▶ may react vigorously when heated with alkali carbonates.</li> </ul> <p>None known</p>

**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 (anatase)	Titanium dioxide	15 mg/m3	Not Available	Not Available	Total dust
US ACGIH Threshold Limit Values (TLV)	titanium dioxide (anatase)	Titanium dioxide	10 mg/m3	Not Available	Not Available	TLV® Basis: LRT irr
US NIOSH Recommended Exposure Limits (RELs)	titanium dioxide (anatase)	Rutile, Titanium oxide, Titanium peroxide	Not Available	Not Available	Not Available	Ca See Appendix A
US ACGIH Threshold Limit Values (TLV)	ethylene glycol	‡ Ethylene glycol	Not Available	Not Available	100 mg/m3	TLV® Basis: URT & eye irr
US NIOSH Recommended Exposure Limits (RELs)	ethylene glycol	1,2-Dihydroxyethane; 1,2-Ethanediol; Glycol; Glycol alcohol; Monoethylene glycol	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Levels (PELs) - Table Z1	silica amorphous	Silica, amorphous, precipitated and gel	Not Available	Not Available	Not Available	See Table Z-3
US OSHA Permissible Exposure Levels (PELs) - Table Z1	silica amorphous	Silica, fused, respirable dust	Not Available	Not Available	Not Available	See Table Z-3
US OSHA Permissible Exposure Levels (PELs) - Table Z1	silica amorphous	Silica, amorphous, diatomaceous earth	Not Available	Not Available	Not Available	See Table Z-3;containing less than 1% crystalline silica
US OSHA Permissible Exposure Levels (PELs) - Table Z3	silica amorphous	Amorphous	80/(%SiO2) mg/m3 / 20 mppcf	Not Available	Not Available	including natural diatomaceous earth
US NIOSH Recommended Exposure Limits (RELs)	silica amorphous	Diatomaceous earth, Diatomaceous silica, Diatomite, Precipitated amorphous silica, Silica gel, Silicon dioxide (amorphous)	6 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Levels (PELs) - Table Z1	silica crystalline - quartz	Silica, crystalline quartz, respirable dust	Not Available	Not Available	Not Available	See Table Z-3
US OSHA Permissible Exposure Levels (PELs) - Table Z3	silica crystalline - quartz	Silica: Crystalline Quartz	10/(% SiO2+ 2) mg/m3 / 30/(% SiO2+ 2) mg/m3 / 250/(%SiO2+5) mppcf	Not Available	Not Available	(Respirable);(TWA mppcf (The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable)); (TWA mg/m3 (e)) / (Total Dust)
US NIOSH Recommended Exposure Limits (RELs)	silica crystalline - quartz	Cristobalite, Quartz, Tridymite, Tripoli	0.05 mg/m3	Not Available	Not Available	Ca See Appendix A


**EMERGENCY LIMITS**

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Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
titanium dioxide (anatase)	Titanium oxide; (Titanium dioxide)	30 mg/m3	330 mg/m3	2,000 mg/m3
ethylene glycol	Ethylene glycol	30 ppm	40 ppm	60 ppm
silica amorphous	Silica gel, amorphous synthetic	18 mg/m3	200 mg/m3	1,200 mg/m3
silica amorphous	Silica, amorphous fumed	18 mg/m3	100 mg/m3	630 mg/m3
silica amorphous	Siloxanes and silicones, dimethyl, reaction products with silica; (Hydrophobic silicon dioxide, amorphous)	120 mg/m3	1,300 mg/m3	7,900 mg/m3
silica amorphous	Silica, amorphous fume	45 mg/m3	500 mg/m3	3,000 mg/m3
silica amorphous	Silica amorphous hydrated	18 mg/m3	220 mg/m3	1,300 mg/m3
5-chloro-2-methyl-4-isothiazolin-3-one	Chloro-2-methyl-4-isothiazolin-3-one, 5-	0.6 mg/m3	6.6 mg/m3	40 mg/m3
magnesium chloride	Magnesium chloride	11 mg/m3	120 mg/m3	550 mg/m3
magnesium chloride	Magnesium chloride hexahydrate	34 mg/m3	370 mg/m3	1,600 mg/m3
magnesium nitrate	Magnesium(II) nitrate (1:2), hexahydrate	16 mg/m3	180 mg/m3	1,100 mg/m3
magnesium nitrate	Magnesium nitrate; (Magnesium(II) nitrate (1:2))	30 mg/m3	330 mg/m3	2,000 mg/m3
mono-p-nonylphenyl ether, branched, ethoxylated	Nonylphenol, 4-, branched, ethoxylated	30 mg/m3	330 mg/m3	2,000 mg/m3
silica crystalline - quartz	Silica, crystalline-quartz; (Silicon dioxide)	0.075 mg/m3	33 mg/m3	200 mg/m3

Ingredient	Original IDLH	Revised IDLH
titanium dioxide (anatase)	N.E. mg/m3 / N.E. ppm	5,000 mg/m3
water	Not Available	Not Available
ethylene glycol	Not Available	Not Available
silica amorphous	N.E. mg/m3 / N.E. ppm	3,000 mg/m3
5-chloro-2-methyl-4-isothiazolin-3-one	Not Available	Not Available
2-methyl-4-isothiazolin-3-one	Not Available	Not Available
magnesium chloride	Not Available	Not Available
magnesium nitrate	Not Available	Not Available
mono-p-nonylphenyl ether, branched, ethoxylated	Not Available	Not Available
C.I. Pigment Yellow 42	Not Available	Not Available
silica crystalline - quartz	N.E. mg/m3 / N.E. ppm	50 mg/m3

**Exposure controls**

<b>Appropriate engineering controls</b>	<p>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.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <ul style="list-style-type: none"> <li>▶ Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area.</li> <li>▶ Work should be undertaken in an isolated system such as a "glove-box" . Employees should wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system.</li> <li>▶ Within regulated areas, the carcinogen should be stored in sealed containers, or enclosed in a closed system, including piping systems, with any sample ports or openings closed while the carcinogens are contained within.</li> <li>▶ Open-vessel systems are prohibited.</li> <li>▶ Each operation should be provided with continuous local exhaust ventilation so that air movement is always from ordinary work areas to the operation.</li> <li>▶ Exhaust air should not be discharged to regulated areas, non-regulated areas or the external environment unless decontaminated. Clean make-up air should be introduced in sufficient volume to maintain correct operation of the local exhaust system.</li> <li>▶ For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.</li> <li>▶ Except for outdoor systems, regulated areas should be maintained under negative pressure (with respect to non-regulated areas).</li> <li>▶ Local exhaust ventilation requires make-up air be supplied in equal volumes to replaced air.</li> <li>▶ Laboratory hoods must be designed and maintained so as to draw air inward at an average linear face velocity of 0.76 m/sec with a minimum of 0.64 m/sec. Design and construction of the fume hood requires that insertion of any portion of the employees body, other than hands and arms, be disallowed.</li> </ul>
<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. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>

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	No special equipment required due to the physical form of the product.
<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> No special equipment required due to the physical form of the product.
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent]</li> <li>▶ Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent]</li> <li>▶ Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.</li> <li>▶ Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood.</li> <li>▶ Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.</li> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eye wash unit.</li> </ul>
<b>Thermal hazards</b>	Not Available

### Respiratory protection

**Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)**

If inhalation risk above the TLV exists, wear approved dust respirator.

Use respirators with protection factors appropriate for the exposure level.

- ▶ Up to 5 X TLV, use valveless mask type; up to 10 X TLV, use 1/2 mask dust respirator
- ▶ Up to 50 X TLV, use full face dust respirator or demand type C air supplied respirator
- ▶ Up to 500 X TLV, use powered air-purifying dust respirator or a Type C pressure demand supplied-air respirator
- ▶ Over 500 X TLV wear full-face self-contained breathing apparatus with positive pressure mode or a combination respirator with a Type C positive pressure supplied-air full-face respirator and an auxiliary self-contained breathing apparatus operated in pressure demand or other positive pressure mode
- ▶ Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- ▶ The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- ▶ Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- ▶ Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- ▶ Use approved positive flow mask if significant quantities of dust becomes airborne.
- ▶ Try to avoid creating dust conditions.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

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

## SECTION 10 STABILITY AND REACTIVITY

## Zone Marking Paint - Yellow F10885

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	Product is considered stable and hazardous polymerisation will not occur.
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

### SECTION 11 TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

<b>Inhaled</b>	There is strong evidence to suggest that this material can cause, if inhaled once, very serious, irreversible damage of organs. 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.
<b>Ingestion</b>	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.
<b>Skin Contact</b>	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. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.
<b>Eye</b>	This material can cause eye irritation and damage in some persons.
<b>Chronic</b>	There is sufficient evidence to suggest that this material directly causes cancer in humans. Toxic: danger of serious damage to health by prolonged exposure through inhalation. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Crystalline silicas activate the inflammatory response of white blood cells after they injure the lung epithelium. Chronic exposure to crystalline silicas reduces lung capacity and predisposes to chest infections.




<b>Zone Marking Paint - Yellow F10885</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>titanium dioxide (anatase)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Inhalation (rat) LC50: >2.28 mg/l/4hr <sup>[1]</sup>	Not Available
	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>	
	Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	
<b>water</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (rat) LD50: >90000 mg/kg <sup>[2]</sup>	Not Available
<b>ethylene glycol</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: 9530 mg/kg <sup>[2]</sup>	Eye (rabbit): 100 mg/1h - mild
	Inhalation (rat) LC50: 50.1 mg/L/8 hr <sup>[2]</sup>	Eye (rabbit): 12 mg/m <sup>3</sup> /3D
	Oral (rat) LD50: 4700 mg/kg <sup>[2]</sup>	Eye (rabbit): 1440mg/6h-moderate
		Eye (rabbit): 500 mg/24h - mild Skin (rabbit): 555 mg(open)-mild
<b>silica amorphous</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): non-irritating *
	Inhalation (rat) LC50: >0.139 mg/l/14hr <sup>[2]</sup>	Skin (rabbit): non-irritating *
	Oral (rat) LD50: 3160 mg/kg <sup>[2]</sup>	
<b>5-chloro-2-methyl-4-isothiazolin-3-one</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>2-methyl-4-isothiazolin-3-one</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available

## Zone Marking Paint - Yellow F10885

<b>Legend:</b>	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 (ANATASE)</b>	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.
<b>ETHYLENE GLYCOL</b>	For ethylene glycol: Ethylene glycol is quickly and extensively absorbed through the gastrointestinal tract. Limited information suggests that it is also absorbed through the respiratory tract; dermal absorption is apparently slow. Following absorption, ethylene glycol is distributed throughout the body according to total body water. [Estimated Lethal Dose (human) 100 ml; RTECS quoted by Orica] Substance is reproductive effector in rats (birth defects). Mutagenic to rat cells.
<b>SILICA AMORPHOUS</b>	For silica amorphous: When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body. Following absorption across the gut, SAS is eliminated via urine without modification in animals and humans. Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS]
<b>5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE</b>	Considered to be the major sensitiser in Kathon CG (1)
<b>2-METHYL-4-ISOTHIAZOLIN-3-ONE</b>	Considered to be a minor sensitiser in Kathon CG (1)
<b>MAGNESIUM NITRATE</b>	Magnesium nitrate hexahydrate is a methaemoglobin-forming agent which if inhaled or ingested in high enough concentrations may cause fatigue, headache, dizziness. (Source: I.L.O. Encyclopaedia)
<b>MONO-P-NONYLPHENYL ETHER, BRANCHED, ETHOXYLATED</b>	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. for linear material: Maternal effects, effects on fertility recorded.
<b>SILICA CRYSTALLINE - QUARTZ</b>	<b>WARNING:</b> For inhalation exposure <u>ONLY</u> : This substance has been classified by the IARC as Group 1: <b>CARCINOGENIC TO HUMANS</b>  The International Agency for Research on Cancer (IARC) has classified occupational exposures to <b>respirable</b> (<5 µm) crystalline silica as being carcinogenic to humans. This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease.
<b>WATER &amp; 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; 2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; C.I. PIGMENT YELLOW 42</b>	No significant acute toxicological data identified in literature search.
<b>SILICA AMORPHOUS &amp; C.I. PIGMENT YELLOW 42</b>	The substance is classified by IARC as Group 3: <b>NOT</b> classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.
<b>5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; 2-METHYL-4-ISOTHIAZOLIN-3-ONE</b>	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
<b>5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; 2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; MAGNESIUM NITRATE</b>	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
<b>5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; 2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; MAGNESIUM NITRATE &amp; MONO-P-NONYLPHENYL ETHER, BRANCHED, ETHOXYLATED</b>	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.
<b>5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; 2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; MAGNESIUM CHLORIDE &amp; C.I. PIGMENT YELLOW 42</b>	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.
<b>5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; 2-METHYL-4-ISOTHIAZOLIN-3-ONE</b>	<b>NOTE:</b> Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.
<b>5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE &amp; 2-METHYL-4-ISOTHIAZOLIN-3-ONE</b>	(1). Bruze et al - Contact Dermatitis 20: 219-39, 1989

<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 (anatase)	LC50	96	Fish	9.214mg/L	3
titanium dioxide (anatase)	EC50	48	Crustacea	>10mg/L	2
titanium dioxide (anatase)	EC50	72	Algae or other aquatic plants	5.83mg/L	4
titanium dioxide (anatase)	EC20	72	Algae or other aquatic plants	1.81mg/L	4
titanium dioxide (anatase)	NOEC	336	Fish	0.089mg/L	4
ethylene glycol	LC50	96	Fish	2284.940mg/L	3
ethylene glycol	EC50	48	Crustacea	5046.29mg/L	5
ethylene glycol	EC50	96	Algae or other aquatic plants	6500-13000mg/L	1
ethylene glycol	EC50	Not Applicable	Crustacea	=10mg/L	1
ethylene glycol	NOEC	552	Crustacea	>=1000mg/L	2
silica amorphous	LC50	96	Fish	120.743mg/L	3
silica amorphous	EC50	48	Crustacea	ca.7600mg/L	1
silica amorphous	EC50	72	Algae or other aquatic plants	440mg/L	1
silica amorphous	EC50	384	Crustacea	28.000mg/L	3
silica amorphous	NOEC	72	Algae or other aquatic plants	60mg/L	1
5-chloro-2-methyl-4-isothiazolin-3-one	LC50	96	Fish	0.19mg/L	4
5-chloro-2-methyl-4-isothiazolin-3-one	EC50	48	Crustacea	0.028mg/L	4
5-chloro-2-methyl-4-isothiazolin-3-one	EC50	72	Algae or other aquatic plants	0.021mg/L	4
5-chloro-2-methyl-4-isothiazolin-3-one	EC50	120	Algae or other aquatic plants	0.022mg/L	4
5-chloro-2-methyl-4-isothiazolin-3-one	NOEC	504	Crustacea	0.172mg/L	1
2-methyl-4-isothiazolin-3-one	LC50	96	Fish	0.07mg/L	4
2-methyl-4-isothiazolin-3-one	EC50	48	Crustacea	0.18mg/L	4
2-methyl-4-isothiazolin-3-one	EC50	72	Algae or other aquatic plants	0.05mg/L	4
2-methyl-4-isothiazolin-3-one	EC50	96	Algae or other aquatic plants	0.538mg/L	3
magnesium chloride	LC50	96	Fish	428.733mg/L	3
magnesium chloride	EC50	48	Crustacea	140mg/L	4
magnesium chloride	EC50	72	Algae or other aquatic plants	>100mg/L	2
magnesium chloride	EC50	384	Crustacea	98.330mg/L	3
magnesium chloride	NOEC	72	Algae or other aquatic plants	100mg/L	2
magnesium nitrate	LC50	96	Fish	1378mg/L	2
magnesium nitrate	EC50	72	Algae or other aquatic plants	>100mg/L	2
magnesium nitrate	NOEC	72	Algae or other aquatic plants	100mg/L	2
C.I. Pigment Yellow 42	LC50	96	Fish	0.05mg/L	2
C.I. Pigment Yellow 42	EC50	72	Algae or other aquatic plants	18mg/L	2
C.I. Pigment Yellow 42	EC50	504	Crustacea	4.49mg/L	2
C.I. Pigment Yellow 42	NOEC	504	Fish	0.52mg/L	2

#### 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

### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
titanium dioxide (anatase)	HIGH	HIGH
water	LOW	LOW
ethylene glycol	LOW (Half-life = 24 days)	LOW (Half-life = 3.46 days)
silica amorphous	LOW	LOW

5-chloro-2-methyl-4-isothiazolin-3-one	HIGH	HIGH
2-methyl-4-isothiazolin-3-one	HIGH	HIGH
magnesium chloride	HIGH	HIGH

**Bioaccumulative potential**

Ingredient	Bioaccumulation
titanium dioxide (anatase)	LOW (BCF = 10)
water	LOW (LogKOW = -1.38)
ethylene glycol	LOW (BCF = 200)
silica amorphous	LOW (LogKOW = 0.5294)
5-chloro-2-methyl-4-isothiazolin-3-one	LOW (LogKOW = 0.0444)
2-methyl-4-isothiazolin-3-one	LOW (LogKOW = -0.8767)
magnesium chloride	LOW (LogKOW = 0.0494)

**Mobility in soil**

Ingredient	Mobility
titanium dioxide (anatase)	LOW (KOC = 23.74)
water	LOW (KOC = 14.3)
ethylene glycol	HIGH (KOC = 1)
silica amorphous	LOW (KOC = 23.74)
5-chloro-2-methyl-4-isothiazolin-3-one	LOW (KOC = 45.15)
2-methyl-4-isothiazolin-3-one	LOW (KOC = 27.88)
magnesium chloride	LOW (KOC = 23.74)

**SECTION 13 DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Product / Packaging disposal</b>	<ul style="list-style-type: none"> <li>▶ Containers may still present a chemical hazard/ danger when empty.</li> <li>▶ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▶ 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.</li> <li>▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Management Authority for disposal.</li> <li>▶ Bury residue in an authorised landfill.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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**SECTION 14 TRANSPORT INFORMATION****Labels Required**

<b>Marine Pollutant</b>	NO
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**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 (ANATASE)(1317-70-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

## Zone Marking Paint - Yellow F10885

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

US - Alaska Limits for Air Contaminants

US - California Permissible Exposure Limits for Chemical Contaminants

US - California Proposition 65 - Carcinogens

US - Hawaii Air Contaminant Limits

US - Idaho - Limits for Air Contaminants

US - Massachusetts - Right To Know Listed Chemicals

US - Michigan Exposure Limits for Air Contaminants

US - Minnesota Permissible Exposure Limits (PELs)

US - Oregon Permissible Exposure Limits (Z-1)

US - Pennsylvania - Hazardous Substance List

US - Rhode Island Hazardous Substance List

US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

US - Washington Permissible exposure limits of air contaminants

US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Levels (PELs) - Table Z1

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 Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

### 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

### ETHYLENE GLYCOL(107-21-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Alaska Limits for Air Contaminants

US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)

US - California Permissible Exposure Limits for Chemical Contaminants

US - California Proposition 65 - Reproductive Toxicity

US - Hawaii Air Contaminant Limits

US - Massachusetts - Right To Know Listed Chemicals

US - Michigan Exposure Limits for Air Contaminants

US - Minnesota Permissible Exposure Limits (PELs)

US - Oregon Permissible Exposure Limits (Z-1)

US - Pennsylvania - Hazardous Substance List

US - Rhode Island Hazardous Substance List

US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

US - Washington Permissible exposure limits of air contaminants

US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values

US ACGIH Threshold Limit Values (TLV)

US ACGIH Threshold Limit Values (TLV) - Carcinogens

US ACGIH Threshold Limit Values (TLV) - Notice of Intended Changes

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)

US Clean Air Act - Hazardous Air Pollutants

US EPCRA Section 313 Chemical List

US NIOSH Recommended Exposure Limits (RELs)

US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

### SILICA AMORPHOUS(7631-86-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

US - Alaska Limits for Air Contaminants

US - California Permissible Exposure Limits for Chemical Contaminants

US - Hawaii Air Contaminant Limits

US - Idaho - Limits for Air Contaminants

US - Idaho - Toxic and Hazardous Substances - Mineral Dust

US - Massachusetts - Right To Know Listed Chemicals

US - Michigan Exposure Limits for Air Contaminants

US - Minnesota Permissible Exposure Limits (PELs)

US - Oregon Permissible Exposure Limits (Z-1)

US - Oregon Permissible Exposure Limits (Z-3)

US - Pennsylvania - Hazardous Substance List

US - Rhode Island Hazardous Substance List

US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

US - Washington Permissible exposure limits of air contaminants

US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values

US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants

US - Wyoming Toxic and Hazardous Substances Table Z-3 Mineral Dusts

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Levels (PELs) - Table Z1

US OSHA Permissible Exposure Levels (PELs) - Table Z3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

### 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE(26172-55-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Section 5(a)(2) - Significant New Use Rules (SNURs)

### 2-METHYL-4-ISOTHIAZOLIN-3-ONE(2682-20-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Section 5(a)(2) - Significant New Use Rules (SNURs)

### MAGNESIUM CHLORIDE(7786-30-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

### MAGNESIUM NITRATE(13446-18-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Massachusetts - Right To Know Listed Chemicals

US - Pennsylvania - Hazardous Substance List

US - Rhode Island Hazardous Substance List

US EPCRA Section 313 Chemical List

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

### MONO-P-NONYLPHENYL ETHER, BRANCHED, ETHOXYLATED(127087-87-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

### C.I. PIGMENT YELLOW 42(51274-00-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Alaska Limits for Air Contaminants

US - Pennsylvania - Hazardous Substance List

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

### SILICA CRYSTALLINE - QUARTZ(14808-60-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs	US - Rhode Island Hazardous Substance List
US - Alaska Limits for Air Contaminants	US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)	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 - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values
US - Idaho - Limits for Air Contaminants	US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
US - Idaho - Toxic and Hazardous Substances - Mineral Dust	US - Wyoming Toxic and Hazardous Substances Table Z-3 Mineral Dusts
US - Massachusetts - Right To Know Listed Chemicals	US ACGIH Threshold Limit Values (TLV) - Carcinogens
US - Michigan Exposure Limits for Air Contaminants	US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens
US - Minnesota Permissible Exposure Limits (PELs)	US NIOSH Recommended Exposure Limits (RELs)
US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Carcinogens	US OSHA Permissible Exposure Levels (PELs) - Table Z1
US - Oregon Permissible Exposure Limits (Z-1)	US OSHA Permissible Exposure Levels (PELs) - Table Z3
US - Oregon Permissible Exposure Limits (Z-3)	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

### Federal Regulations

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

##### SECTION 311/312 HAZARD CATEGORIES

Immediate (acute) health hazard	Yes
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
Ethylene glycol	5000	2270

### 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), Ethylene glycol (ingested), Silica, crystalline (airborne particles of respirable size) Listed

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (magnesium chloride; mono-p-nonylphenyl ether, branched, ethoxylated; magnesium nitrate; 5-chloro-2-methyl-4-isothiazolin-3-one; 2-methyl-4-isothiazolin-3-one; water; silica crystalline - quartz; ethylene glycol; C.I. Pigment Yellow 42)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (mono-p-nonylphenyl ether, branched, ethoxylated; 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 (anatase)	1317-70-0, 13463-67-7
silica amorphous	7631-86-9, 112945-52-5, 67762-90-7, 68611-44-9, 68909-20-6, 112926-00-8, 61790-53-2, 60676-86-0, 91053-39-3, 69012-64-2, 844491-94-7
magnesium chloride	7786-30-3, 7791-18-6, 14989-29-8
magnesium nitrate	13446-18-9, 10377-60-3, 10213-15-7

**Zone Marking Paint - Yellow F10885**

C.I. Pigment Yellow 42	51274-00-1, 12259-21-1, 105478-30-6, 53028-10-7, 1342-51-4, 12000-32-7, 50641-37-7, 51109-85-4, 99241-66-4, 131462-81-2, 147625-38-5, 12001-03-5, 185464-57-7, 182761-12-2, 94809-98-0, 934248-40-5
silica crystalline - quartz	14808-60-7, 122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 70594-95-5, 87347-84-0

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. Scale of use, frequency of use and current or available engineering controls must be considered.

**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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