



# Decorative Surface Defender Satin - P23203

## ICP Building Solutions Group

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	Decorative Surface Defender Satin - P23203
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified uses	Decorative Surface Defender
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#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	ICP Building Solutions Group
Address	150 Dascomb Road Andover MA United States
Telephone	978-623-9980
Fax	Not Available
Website	<a href="http://www.icpgroup.com">www.icpgroup.com</a>
Email	Not Available

#### Emergency phone number

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

### SECTION 2 Hazard(s) identification

#### Classification of the substance or mixture

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification	Eye Irritation Category 2A, Skin Corrosion/Irritation Category 2, Skin Sensitizer Category 1
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#### Label elements

Hazard pictogram(s)	
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Signal word	Warning
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#### Hazard statement(s)

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Hazard(s) not otherwise classified

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Not Applicable

## Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

## Precautionary statement(s) Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash thoroughly after handling.
P261	Avoid breathing mist/vapours/spray.

## Precautionary statement(s) Response

P305+P351+P338	IF IN EYES:: Wash cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P302+P352	IF ON SKIN: Wash with plenty of water
P332+P313	If skin irritation occurs, get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.

## Precautionary statement(s) Storage

Not Applicable

## Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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## SECTION 3 Composition / information on ingredients

## Substances

See section below for composition of Mixtures

## Mixtures

CAS No	%[weight]	Name
121-44-8	.25-5	triethylamine
57-55-6	1-5	propylene glycol
111-76-2	1-5	ethylene glycol monobutyl ether

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

## SECTION 4 First-aid measures

## Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	<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>
Inhalation	<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>
Ingestion	<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

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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

for irritant gas exposures:

- ▶ the presence of the agent when it is inhaled is evanescent (of short duration) and therefore, cannot be washed away or otherwise removed
- ▶ arterial blood gases are of primary importance to aid in determination of the extent of damage. Never discharge a patient significantly exposed to an irritant gas without obtaining an arterial blood sample.
- ▶ supportive measures include suctioning (intubation may be required), volume cycle ventilator support (positive and expiratory pressure (PEEP), steroids and antibiotics, after a culture is taken
- ▶ If the eyes are involved, an ophthalmologic consultation is recommended

Occupational Medicine: Third Edition; Zenz, Dickerson, Horvath 1994 Pub: Mosby

For acute or short term repeated exposures to ammonia and its solutions:

- ▶ Mild to moderate inhalation exposures produce headache, cough, bronchospasm, nausea, vomiting, pharyngeal and retrosternal pain and conjunctivitis. Severe inhalation produces laryngospasm, signs of upper airway obstruction (stridor, hoarseness, difficulty in speaking) and, in excessively, high doses, pulmonary oedema.
- ▶ Warm humidified air may soothe bronchial irritation.
- ▶ Test all patients with conjunctival irritation for corneal abrasion (fluorescein stain, slit lamp exam)
- ▶ Dyspneic patients should receive a chest X-ray and arterial blood gases to detect pulmonary oedema.

## SECTION 5 Fire-fighting measures

### Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.

### 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> </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> </ul> Combustion products include: carbon dioxide (CO <sub>2</sub> ) metal oxides other pyrolysis products typical of burning organic material. May emit corrosive fumes.

## 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> </ul>
<b>Major Spills</b>	Moderate hazard. <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</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>▶ <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> </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>	▶ Avoid reaction with oxidising agents

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## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	triethylamine	TEA	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Levels (PELs) - Table Z1	triethylamine	Triethylamine	25 ppm / 100 mg/m <sup>3</sup>	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	triethylamine	Triethylamine	0.5 ppm	1 ppm	Not Available	Visual impair; URT irr
US NIOSH Recommended Exposure Limits (RELs)	ethylene glycol monobutyl ether	Butyl Cellosolve®, Butyl oxitol, Dowanol® EB, EGBE, Ektasolve EB®, Ethylene glycol monobutyl ether, Jeffersol EB	5 ppm / 24 mg/m <sup>3</sup>	Not Available	Not Available	[skin]
US OSHA Permissible Exposure Levels (PELs) - Table Z1	ethylene glycol monobutyl ether	2-Butoxyethanol	50 ppm / 240 mg/m <sup>3</sup>	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	ethylene glycol monobutyl ether	2-Butoxyethanol	20 ppm	Not Available	Not Available	Eye & URT irr; BEI

## Emergency Limits

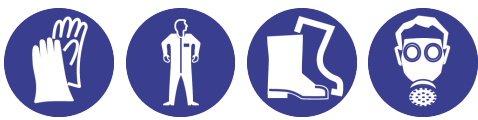
Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
triethylamine	Triethylamine	1 ppm	170 ppm	1,000 ppm
propylene glycol	Polypropylene glycols	30 mg/m <sup>3</sup>	330 mg/m <sup>3</sup>	2,000 mg/m <sup>3</sup>
propylene glycol	Propylene glycol; (1,2-Propanediol)	30 mg/m <sup>3</sup>	1,300 mg/m <sup>3</sup>	7,900 mg/m <sup>3</sup>
ethylene glycol monobutyl ether	Butoxyethanol, 2-; (Glycol ether EB)	60 ppm	120 ppm	700 ppm

Ingredient	Original IDLH	Revised IDLH
triethylamine	200 ppm	Not Available
propylene glycol	Not Available	Not Available
ethylene glycol monobutyl ether	700 ppm	Not Available

## Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
propylene glycol	E	≤ 0.1 ppm
<b>Notes:</b>	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.	

## Exposure controls

<b>Appropriate engineering controls</b>	CARE: Explosive vapour air mixtures may be present on opening vessels which have contained liquid ammonia. Fatalities have occurred 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.
<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> </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> </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>
<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>

## Respiratory protection

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

- ▶ 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

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respirators is considered appropriate.

- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

Appearance	Not Available		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
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	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> </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	<p>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.</p> <p>The highly irritant properties of ammonia vapour result as the gas dissolves in mucous fluids and forms irritant, even corrosive solutions. Inhalation of the ammonia fumes causes coughing, vomiting, reddening of lips, mouth, nose, throat and conjunctiva while higher concentrations can cause temporary blindness, restlessness, tightness in the chest, pulmonary oedema (lung damage), weak pulse and cyanosis.</p>
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>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>Large doses of ammonia or injected ammonium salts may produce diarrhoea and may be sufficiently absorbed to produce increased production of urine and systemic poisoning. Symptoms include weakening of facial muscle, tremor, anxiety, reduced muscle and limb control.</p>
Skin Contact	<p>This material can cause inflammation of the skin on contact in some persons.</p> <p>The material may accentuate any pre-existing dermatitis condition</p> <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>Mild skin reaction is seen with contact of the vapour of this material on moist skin. High concentrations or direct contact with solutions produces severe pain, a stinging sensation, burns and blisters and possible brown stains.</p>
Eye	<p>This material can cause eye irritation and damage in some persons.</p>

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<b>Chronic</b>	<p>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Severe exposure to triethylamine vapours may result in inflammation of the airways, chemical inflammation and fluid build-up in the lungs and even death. Animal testing has shown that chronic exposure can lead to decreased body weights, changes in nervous system function, anaemia, an increase in immature blood cells and chronic inflammation in the lungs.</p> <p>There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Prolonged or repeated minor exposure to ammonia gas/vapour may cause long-term irritation to the eyes, nose and upper airway. Repeated exposure or prolonged contact may produce skin inflammation and conjunctivitis.</p> <p>Propylene glycol is thought to be sensitizing following the regular use of topical creams by eczema patients. Testing in humans showed that 16% of exposed individuals, irritation occurred, with 12.5% showing toxic or allergic reactions.</p>
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<b>Decorative Surface Defender Satin - P23203</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available

<b>triethylamine</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	1000 mg/kg <sup>[2]</sup>	Eye (rabbit): 0.25 mg/24h SEVERE
	Dermal (rabbit) LD50: 570 mg/kg <sup>[2]</sup>	Eye(rabbit): 50ppm/30d int SEVERE
	Oral (rat) LD50: =460 mg/kg <sup>[2]</sup>	Skin (rabbit): 365 mg open mild

<b>propylene glycol</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: 20800 mg/kg <sup>[2]</sup>	Eye (rabbit): 100 mg - mild
	Inhalation (rat) LC50: >44.9 mg/l/4H <sup>[2]</sup>	Eye (rabbit): 500 mg/24h - mild
	Oral (dog) LD50: =20000 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (mouse) LD50: =22000 mg/kg <sup>[2]</sup>	Skin(human):104 mg/3d Intermit Mod
	Oral (mouse) LD50: =23900 mg/kg <sup>[2]</sup>	Skin(human):500 mg/7days mild
	Oral (rabbit) LD50: =18000-19000 mg/kg <sup>[2]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (rabbit) LD50: =18500 mg/kg <sup>[2]</sup>	
	Oral (rat) LD50: 20000 mg/kg <sup>[2]</sup>	

<b>ethylene glycol monobutyl ether</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	90-1800 mg/kg <sup>[2]</sup>	Eye (rabbit): 100 mg SEVERE
	Inhalation (rat) LC50: 2.21 mg/l** <sup>[2]</sup>	Eye (rabbit): 100 mg/24h-moderate
	Inhalation (rat) LC50: 449.48655 mg/l/4H <sup>[2]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup>
	Oral (guinea pig) LD50: =1200 mg/kg <sup>[2]</sup>	Skin (rabbit): 500 mg, open; mild
	Oral (mouse) LD50: =1000-1600 mg/kg <sup>[2]</sup>	Skin: adverse effect observed (irritating) <sup>[1]</sup>
	Oral (mouse) LD50: =1230 mg/kg <sup>[2]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (mouse) LD50: =1700 mg/kg <sup>[2]</sup>	
	Oral (rabbit) LD50: =320 mg/kg <sup>[2]</sup>	
	Oral (rat) LD50: =1190-2800 mg/kg <sup>[2]</sup>	
	Oral (rat) LD50: =1480 mg/kg <sup>[2]</sup>	
	Oral (rat) LD50: =470 mg/kg <sup>[2]</sup>	
	Oral (rat) LD50: 250 mg/kg <sup>[2]</sup>	

**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>Decorative Surface Defender Satin - P23203</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.
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<b>TRIETHYLAMINE</b>	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Overexposure to most of these materials may cause adverse health effects.</p> <p>Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient.</p> <p>There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing.</p> <p>Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Inhalation (human) TCl<sub>0</sub>: 12mg/m<sup>3</sup>/11W contin.Skin (rabbit)mild</p>
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<b>ETHYLENE GLYCOL MONOBUTYL ETHER</b>	<p>NOTE: Changes in kidney, liver, spleen and lungs are observed in animals exposed to high concentrations of this substance by all routes. ** ASCC (NZ) SDS</p> <p>For ethylene glycol monoalkyl ethers and their acetates (EGMAEs):</p> <p>Typical members of this category are ethylene glycol propylene ether (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl ether (EGHE) and their acetates.</p> <p>EGMAEs are substrates for alcohol dehydrogenase isozyme ADH-3, which catalyzes the conversion of their terminal alcohols to aldehydes (which are transient metabolites). Further, rapid conversion of the aldehydes by aldehyde dehydrogenase produces alkoxyacetic acids, which are the predominant urinary metabolites of mono substituted glycol ethers.</p> <p><b>Acute Toxicity:</b> Oral LD50 values in rats for all category members range from 739 (EGHE) to 3089 mg/kg bw (EGPE), with values increasing</p>
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	with decreasing molecular weight. Animal testing showed that exposure to ethylene glycol monobutyl ether resulted in toxicity to both the mother and the embryo. Reproductive effects were thought to be less than that of other monoalkyl ethers of ethylene glycol. Chronic exposure may cause anaemia, with enlargement and fragility of red blood cells. For ethylene glycol: Ethylene glycol is quickly and extensively absorbed throughout the gastrointestinal tract. Limited information suggests that it is also absorbed through the airways; absorption through skin is apparently slow.
<b>Decorative Surface Defender Satin - P23203 &amp; PROPYLENE GLYCOL</b>	The acute oral toxicity of propylene glycol is very low; large amounts are needed to cause perceptible health damage in humans. Serious toxicity generally occurs only at blood concentrations over 1 g/L, which requires extremely high intake over a relatively short period of time; this is nearly impossible with consuming foods or supplements which contain 1g/kg of PG at most.
<b>TRIETHYLAMINE &amp; ETHYLENE GLYCOL MONOBUTYL ETHER</b>	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
<b>TRIETHYLAMINE &amp; PROPYLENE GLYCOL &amp; ETHYLENE GLYCOL MONOBUTYL ETHER</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>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 either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 Ecological information

## Toxicity

Decorative Surface Defender Satin - P23203	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

triethylamine	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96	Fish	24mg/L	2
	EC50	48	Crustacea	17mg/L	2
	EC50	96	Algae or other aquatic plants	1.167mg/L	2
	NOEC	72	Algae or other aquatic plants	1.1mg/L	2

propylene glycol	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96	Fish	>10-mg/L	2
	EC50	48	Crustacea	43-500mg/L	2
	EC50	96	Algae or other aquatic plants	19-100mg/L	2
	NOEC	168	Fish	11-530mg/L	2

ethylene glycol monobutyl ether	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96	Fish	1-250mg/L	2
	EC50	48	Crustacea	>1-mg/L	2
	EC50	96	Algae or other aquatic plants	>1-mg/L	2
	NOEC	24	Crustacea	>1-mg/L	2

**Legend:** *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - 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*

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.

For Surfactants: Kow cannot be easily determined due to hydrophilic/hydrophobic properties of the molecules in surfactants. BCF value: 1-350.

For Ammonia:

Atmospheric Fate: Ammonia reacts rapidly with available acids (mainly sulfuric, nitric, and sometimes hydrochloric acid) to form the corresponding salts. Ammonia is persistent in the air.

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
triethylamine	HIGH	HIGH
propylene glycol	LOW	LOW
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)

## Bioaccumulative potential

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Ingredient	Bioaccumulation
triethylamine	LOW (BCF = 7.45)
propylene glycol	LOW (BCF = 1)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)

## Mobility in soil

Ingredient	Mobility
triethylamine	LOW (KOC = 107.2)
propylene glycol	HIGH (KOC = 1)
ethylene glycol monobutyl ether	HIGH (KOC = 1)

## SECTION 13 Disposal considerations

## Waste treatment methods

Product / Packaging disposal	<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>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> </ul>
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## SECTION 14 Transport information

## Labels Required

Marine Pollutant	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

## triethylamine is found on the following regulatory lists

US ACGIH Threshold Limit Values (TLV)  
 US AIHA Workplace Environmental Exposure Levels (WEELs)  
 US Clean Air Act - Hazardous Air Pollutants  
 US CWA (Clean Water Act) - List of Hazardous Substances  
 US DOE Temporary Emergency Exposure Limits (TEELs)  
 US EPA Integrated Risk Information System (IRIS)  
 US EPCRA Section 313 Chemical List  
 US NIOSH Recommended Exposure Limits (RELs)  
 US OSHA Permissible Exposure Levels (PELs) - Table Z1  
 US OSHA Permissible Exposure Limits - Annotated Table Z-1  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
 US TSCA Chemical Substance Inventory - Interim List of Active Substances

## propylene glycol is found on the following regulatory lists

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)  
 US DOE Temporary Emergency Exposure Limits (TEELs)  
 US EPA Integrated Risk Information System (IRIS)  
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
 US Toxicology Excellence for Risk Assessment (TERA) Workplace Environmental Exposure Levels (WEEL)  
 US TSCA Chemical Substance Inventory - Interim List of Active Substances

## ethylene glycol monobutyl ether is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs  
 US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants  
 US ACGIH Threshold Limit Values (TLV)  
 US AIHA Workplace Environmental Exposure Levels (WEELs)  
 US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)  
 US Clean Air Act - Hazardous Air Pollutants  
 US DOE Temporary Emergency Exposure Limits (TEELs)  
 US EPA Carcinogens Listing  
 US EPA Integrated Risk Information System (IRIS)



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US EPCRA Section 313 Chemical List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Levels (PELs) - Table Z1

US OSHA Permissible Exposure Limits - Annotated Table Z-1

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

US TSCA Chemical Substance Inventory - Interim List of Active Substances

## Federal Regulations

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

## Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	Yes
Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

## US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
Ethanamine, N,N-diethyl-	5000	2270

## State Regulations

## US. California Proposition 65

None Reported

## National Inventory Status

National Inventory	Status
Australia - AIIIC	Yes
Australia Non-Industrial Use	No (triethylamine; propylene glycol; ethylene glycol monobutyl ether)
Canada - DSL	Yes
Canada - NDSL	No (triethylamine; propylene glycol; ethylene glycol monobutyl ether)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - ARIPS	Yes

## Legend:

Yes = All CAS declared ingredients are on the inventory

No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

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**SECTION 16 Other information**

<b>Revision Date</b>	09/01/2020
<b>Initial Date</b>	05/25/2018

**CONTACT POINT**

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

**SDS Version Summary**

<b>Version</b>	<b>Issue Date</b>	<b>Sections Updated</b>
1.2.1.1.1	09/01/2020	Ingredients, Name

**Other information**

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.

**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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