

Stain-Proof Plus

Dry-Treat

Chemwatch: 5194-06
Version No: 2.1.1.1
Safety Data Sheet

Chemwatch Hazard Alert Code: 3

Issue Date: 25/09/2015
Print Date: 16/04/2016
Initial Date: **Not Available**
S.GHS.CAN.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Stain-Proof Plus
Synonyms	masonry sealant, stain preventer
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (contains ethanol)
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses	Water and stain protection for masonry substrate.
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Dry-Treat	Dry-Treat Ltd	Dry-Treat
Address	4/149-155 Pascoe Vale Rd. VIC Moonee Ponds 3039 Australia	United Kingdom	150 Dascomb Road MA Andover 01810 United States
Telephone	1800 675 119 (AUS)	0800 0964 760 (UK)	+1 866 667 5119 (USA)
Fax	+61 2 9954 3162	+61 2 9954 3162	+61 2 9954 3162
Website	Not Available	Not Available	Not Available
Email	Not Available	sds@drytreat.com	Not Available

Emergency phone number

Association / Organisation	Not Available	Not Available	Not Available
Emergency telephone numbers	+1 813 248 0585 (Outside USA)	+1 813 248 0585 (Outside USA)	(800) 255 3924
Other emergency telephone numbers	Not Available	Not Available	+1 813 248 0585 (Outside USA)

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

CANADIAN WHMIS SYMBOLS




CANADIAN WHMIS CLASSIFICATION

Ingredient	CAS number	Classification Description	Classification Code
ethanol	64-17-5	Flammable Liquid, Toxic Material Causing Other Toxic Effects	B2, D2B

Classification	Flammable Liquid Category 2, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3
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Label elements

GHS label elements	
SIGNAL WORD	DANGER

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H332	Harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P271	Use only outdoors or in a well-ventilated area.
P240	Ground and bond container and receiving equipment.

Precautionary statement(s) Response

P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.
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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
Not Available	30-60	alkylalkoxysilane
64-17-5	30-60	<u>ethanol</u>
Not Available	<10	ester
77-58-7	<1	<u>dibutyltin dilaurate</u>
	balance	Ingredients determined not to be hazardous

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"> ▶ Wash out immediately with fresh running water. ▶ 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. ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> ▶ If fumes or combustion products are inhaled remove from contaminated area. ▶ Lay patient down. Keep warm and rested. ▶ Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ 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. ▶ Transport to hospital, or doctor.
Ingestion	<ul style="list-style-type: none"> ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

For acute or short term repeated exposures to ethanol:

- ▶ Acute ingestion in non-tolerant patients usually responds to supportive care with special attention to prevention of aspiration, replacement of fluid and correction of nutritional deficiencies (magnesium, thiamine pyridoxine, Vitamins C and K).
- ▶ Give 50% dextrose (50-100 ml) IV to obtunded patients following blood draw for glucose determination.
- ▶ Comatose patients should be treated with initial attention to airway, breathing, circulation and drugs of immediate importance (glucose, thiamine).
- ▶ Decontamination is probably unnecessary more than 1 hour after a single observed ingestion. Cathartics and charcoal may be given but are probably not effective in single ingestions.
- ▶ Fructose administration is contra-indicated due to side effects.

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

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.

Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ 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

Fire Fighting	<ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves in the event of a fire. ▶ Prevent, by any means available, spillage from entering drains or water course.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▶ Liquid and vapour are highly flammable. ▶ Severe fire hazard when exposed to heat, flame and/or oxidisers. ▶ Vapour may travel a considerable distance to source of ignition. ▶ Heating may cause expansion or decomposition leading to violent rupture of containers. <p>Combustion products include; carbon dioxide (CO₂) silicon dioxide (SiO₂) other pyrolysis products typical of burning organic material</p>

SECTION 6 ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Minor Spills	<ul style="list-style-type: none"> ▶ Remove all ignition sources. ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment.
Major Spills	<ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves.

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

SECTION 7 HANDLING AND STORAGE**Precautions for safe handling**

Safe handling	<ul style="list-style-type: none"> ▶ DO NOT allow clothing wet with material to stay in contact with skin ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps.
Other information	<ul style="list-style-type: none"> ▶ Store in original containers in approved flame-proof area. ▶ No smoking, naked lights, heat or ignition sources. ▶ DO NOT store in pits, depressions, basements or areas where vapours may be trapped. ▶ Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Packing as supplied by manufacturer. ▶ Plastic containers may only be used if approved for flammable liquid. ▶ Check that containers are clearly labelled and free from leaks. ▶ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure. ▶ For materials with a viscosity of at least 2680 cSt. (23 deg. C) ▶ For manufactured product having a viscosity of at least 250 cSt.
Storage incompatibility	<ul style="list-style-type: none"> ▶ Avoid strong acids, bases. ▶ Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters**

|| OCCUPATIONAL EXPOSURE LIMITS (OEL)

|| INGREDIENT DATA

Continued...

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Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	ethanol	Ethyl alcohol (Ethanol)	1,900 mg/m ³ / 1,000 ppm	1,900 mg/m ³ / 1,000 ppm	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	ethanol	Ethanol	1000 ppm	1250 ppm	Not Available	Not Available
Canada - (English)	ethanol	Ethanol	1000 ppm	1250 ppm	Not Available	Not Available
Canada - Nova Scotia Occupational Exposure Limits	ethanol	Ethanol	Not Available	1000 ppm	Not Available	TLV Basis: upper respiratory tract irritation
Canada - Prince Edward Island Occupational Exposure Limits	ethanol	Ethanol	Not Available	1000 ppm	Not Available	TLV® Basis: URT irr
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	ethanol	Ethyl alcohol	1880 mg/m ³ / 1000 ppm	Not Available	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	ethanol	Not Available	Not Available	1000 ppm	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits	ethanol	Ethanol (Ethyl alcohol)	1880 mg/m ³ / 1000 ppm	Not Available	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	ethanol	Ethanol	Not Available	1000 ppm	Not Available	Not Available
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	dibutyltin dilaurate	Tin, organic compounds (as Sn) - Skin	0.1 mg/m ³ / --- ppm	0.2 mg/m ³ / --- ppm	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	dibutyltin dilaurate	Tin, (as Sn): organic compounds	0.1 mg/m ³	0.2 mg/m ³	Not Available	Skin
Canada - (English)	dibutyltin dilaurate	Tin, (as Sn): oxide and inorganic compounds except SnH ₄ / Tin, (as Sn): organic compounds	2 mg/m ³ / 0.1 mg/m ³	4 mg/m ³ / 0.2 mg/m ³	Not Available	Skin
Canada - Nova Scotia Occupational Exposure Limits	dibutyltin dilaurate	Tin - Organic compounds (as Sn)	0.1 mg/m ³	0.2 mg/m ³	Not Available	Not Available
Canada - Prince Edward Island Occupational Exposure Limits	dibutyltin dilaurate	Tin, organic compounds, as Sn	0.1 mg/m ³	0.2 mg/m ³	Not Available	TLV® Basis: Eye & URT irr; headache; nausea; CNS & immune eff
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	dibutyltin dilaurate	Tin: Organic compounds (as Sn)	0.1 mg/m ³	0.2 mg/m ³	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	dibutyltin dilaurate	Not Available	0.1 mg/m ³	0.2 mg/m ³	Not Available	Not Available
Canada - Alberta Occupational Exposure Limits	dibutyltin dilaurate	Tin, as Sn: Organic compounds	0.1 mg/m ³	0.2 mg/m ³	Not Available	Not Available
Canada - British Columbia Occupational Exposure Limits	dibutyltin dilaurate	Tin - Organic compounds, as Sn	0.1 mg/m ³	0.2 mg/m ³	Not Available	Not Available
Canada - Ontario Occupational Exposure Limits	dibutyltin dilaurate	Tin, as Sn - Organic compounds, as Sn	0.1 mg/m ³	Not Available	Not Available	Skin (organic compounds)

EMERGENCY LIMITS


Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
ethanol	Ethyl alcohol; (Ethanol)	Not Available	Not Available	Not Available
dibutyltin dilaurate	Dibutyltin dilaurate; (Dibutylbis(lauroxyoxy)stannane)	1.1 mg/m ³	3.3 mg/m ³	5.2 mg/m ³

Ingredient	Original IDLH	Revised IDLH
alkylalkoxysilane	Not Available	Not Available
ethanol	15,000 ppm	3,300 [LEL] ppm
ester	Not Available	Not Available
dibutyltin dilaurate	Unknown mg/m ³ / Unknown ppm	25 mg/m ³

Exposure controls

Appropriate engineering controls	<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> <ul style="list-style-type: none"> Process controls which involve changing the way a job activity or process is done to reduce the risk. 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.
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Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ 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.
Skin protection	See Hand protection below
Hands/feet protection	<ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber <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> <p>Suitability and durability of glove type is dependent on usage.</p>
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ Overalls. ▶ PVC Apron. ▶ PVC protective suit may be required if exposure severe. ▶ Eyewash unit. <p>Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.</p> <p>For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).</p> <p>Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds.</p>
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

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Material	CPI
##n-butyl	acetate
BUTYL	C
BUTYL/NEOPRENE	C
HYPALON	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PE	C
PE/EVAL/PE	C
PVA	C
PVC	C
TEFLON	C
VITON/BUTYL	C

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

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

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 / Class1 P2	-
up to 50	1000	-	A-AUS / Class 1 P2
up to 50	5000	Airline *	-
up to 100	5000	-	A-2 P2
up to 100	10000	-	A-3 P2
100+			Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Highly flammable liquid with a characteristic odour; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	0.86

Continued...

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Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	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 Applicable
Flash point (°C)	13 CC	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	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 Applicable
Vapour density (Air = 1)	>1	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▶ Unstable in the presence of incompatible materials. ▶ Product is considered stable. ▶ Hazardous polymerisation will not occur.
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>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>Animal testing shows that the most common signs of inhalation overdose is inco-ordination and drowsiness.</p> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p>						
Ingestion	<p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Ingestion of ethanol (ethyl alcohol, "alcohol") may produce nausea, vomiting, bleeding from the digestive tract, abdominal pain, and diarrhoea. Effects on the body:</p> <table border="1"> <thead> <tr> <th>Blood concentration</th> <th>Effects</th> </tr> </thead> <tbody> <tr> <td><1.5 g/L</td> <td>Mild: impaired vision, co-ordination and reaction time; emotional instability</td> </tr> <tr> <td>1.5-3.0 g/L</td> <td>Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardized tests. Possible double vision, flushing, fast heart rate, sweating and incontinence. Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium.</td> </tr> </tbody> </table>	Blood concentration	Effects	<1.5 g/L	Mild: impaired vision, co-ordination and reaction time; emotional instability	1.5-3.0 g/L	Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardized tests. Possible double vision, flushing, fast heart rate, sweating and incontinence. Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium.
Blood concentration	Effects						
<1.5 g/L	Mild: impaired vision, co-ordination and reaction time; emotional instability						
1.5-3.0 g/L	Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardized tests. Possible double vision, flushing, fast heart rate, sweating and incontinence. Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium.						
Skin Contact	<p>The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.</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	<p>Direct contact of the eye with ethanol (alcohol) may cause an immediate stinging and burning sensation, with reflex closure of the lid, and a temporary, tearing injury to the cornea together with redness of the conjunctiva. Discomfort may last 2 days but usually the injury heals without treatment.</p> <p>There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain.</p>						

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Chronic	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Prolonged exposure to ethanol may cause damage to the liver and cause scarring. It may also worsen damage caused by other agents.	
Stain-Proof Plus	TOXICITY	IRRITATION
	Not Available	Not Available
ethanol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 17100 mg/kg ^[1]	Eye (rabbit): 500 mg SEVERE
	Inhalation (rat) LC50: 64000 ppm/4h ^[2]	Eye (rabbit):100mg/24hr-moderate
	Oral (rat) LD50: >1187-2769 mg/kg ^[1]	Skin (rabbit):20 mg/24hr-moderate
dibutyltin dilaurate	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit): 100 mg/24h -moderate
	Inhalation (mouse) LC50: 0.15 mg/L/2H ^[2]	Skin (rabbit): 500 mg/24h - mild
	Oral (rat) LD50: >=33<=300 mg/kg ^[1]	
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	

ETHANOL	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.	
Acute Toxicity	✓	Carcinogenicity
Skin Irritation/Corrosion	✓	Reproductivity
Serious Eye Damage/Irritation	✓	STOT - Single Exposure
Respiratory or Skin sensitisation	⊘	STOT - Repeated Exposure
Mutagenicity	⊘	Aspiration Hazard

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

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
ethanol	EC50	24	Algae or other aquatic plants	0.0129024mg/L	4
ethanol	EC50	48	Crustacea	2mg/L	4
ethanol	LC50	96	Fish	42mg/L	4
ethanol	NOEC	2016	Fish	0.000375mg/L	4
ethanol	EC50	72	Algae or other aquatic plants	275mg/L	2
dibutyltin dilaurate	EC50	384	Crustacea	0.11177mg/L	3
dibutyltin dilaurate	LC50	96	Fish	0.00024mg/L	3
dibutyltin dilaurate	EC50	48	Crustacea	<0.463mg/L	2
dibutyltin dilaurate	NOEC	48	Crustacea	1.7mg/L	2
dibutyltin dilaurate	EC50	72	Algae or other aquatic plants	>1mg/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

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.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ethanol	LOW (Half-life = 2.17 days)	LOW (Half-life = 5.08 days)
dibutyltin dilaurate	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation

Continued...

ethanol	LOW (LogKOW = -0.31)
dibutyltin dilaurate	LOW (BCF = 110)


Mobility in soil

Ingredient	Mobility
ethanol	HIGH (KOC = 1)
dibutyltin dilaurate	LOW (KOC = 64610000)

SECTION 13 DISPOSAL CONSIDERATIONS**Waste treatment methods**

Product / Packaging disposal	<p>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.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> ▶ Reduction ▶ Reuse ▶ Recycling ▶ Disposal (if all else fails) <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.</p> <ul style="list-style-type: none"> ▶ 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. ▶ Where in doubt contact the responsible authority. ▶ Recycle wherever possible. ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▶ Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material). ▶ Decontaminate empty containers.
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SECTION 14 TRANSPORT INFORMATION**Labels Required**

	
Marine Pollutant	NO

Land transport (TDG)

UN number	1993	
Packing group	II	
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (contains ethanol)	
Environmental hazard	Not Applicable	
Transport hazard class(es)	Class : 3	Subrisk : Not Applicable
Special precautions for user	Special provisions	16, 150
	Explosive Limit and Limited Quantity Index	1 L
	ERAP Index	Not Applicable

Air transport (ICAO-IATA / DGR)

UN number	1993	
Packing group	II	
UN proper shipping name	Flammable liquid, n.o.s. * (contains ethanol)	
Environmental hazard	Not Applicable	
Transport hazard class(es)	ICAO/IATA Class : 3	ICAO / IATA Subrisk : Not Applicable
	ERG Code	3H
Special precautions for user	Special provisions	A3
	Cargo Only Packing Instructions	364
	Cargo Only Maximum Qty / Pack	60 L
	Passenger and Cargo Packing Instructions	353

Passenger and Cargo Maximum Qty / Pack	5 L
Passenger and Cargo Limited Quantity Packing Instructions	Y341
Passenger and Cargo Limited Maximum Qty / Pack	1 L

Sea transport (IMDG-Code / GGVSee)

UN number	1993	
Packing group	II	
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (contains ethanol)	
Environmental hazard	Not Applicable	
Transport hazard class(es)	IMDG Class	3
	IMDG Subrisk	Not Applicable
Special precautions for user	EMS Number	F-E, S-E
	Special provisions	274
	Limited Quantities	1 L

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**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

ETHANOL(64-17-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Canada - (English)	Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits
Canada - Alberta Occupational Exposure Limits	Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances
Canada - British Columbia Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - Nova Scotia Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Prince Edward Island Occupational Exposure Limits	Canada Forensic Identification Services Chemical Carcinogenicity Evaluation - Table 1 - Chemicals Considered for Assessment (English)
Canada - Prince Edward Island Occupational Exposure Limits - Carcinogens	Canada Forensic Identification Services Chemical Carcinogenicity Evaluation - Table 1 - Chemicals Considered for Assessment (French)
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (French)	

DIBUTYL TIN DILAUATE(77-58-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Canada - (English)	Canada - Quebec Permissible Exposure Values for Airborne Contaminants (French)
Canada - Alberta Occupational Exposure Limits	Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits
Canada - British Columbia Occupational Exposure Limits	Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances
Canada - Nova Scotia Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - Ontario Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Prince Edward Island Occupational Exposure Limits	

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (ethanol; dibutyltin dilaurate)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	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**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.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net

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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