



SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING


1.1	<u>PRODUCT IDENTIFIER:</u>	PRINTLOCK 3D PRINT ADHESIVE
1.2	<u>RELEVANT IDENTIFIED USES AND USES ADVISED AGAINST:</u> <u>Intended uses (main technical functions):</u> Adhesive. <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Professional <input checked="" type="checkbox"/> Consumers <u>Sectors of use:</u> Consumer uses (SU21). <u>Uses advised against:</u> This product is not recommended for any use or sector of use (industrial, professional or consumer) other than those previously listed as 'Intended or identified uses'. <u>Restrictions on manufacture, placing on market and use, according to Annex XVII of Regulation (EC) No. 1907/2006:</u> Not restricted.	
1.3	<u>DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:</u> FISAG LIMITED 5 Keith Hay Court, Silverdale Auckland, 0932, New Zealand <u>E-mail address of the person responsible for the Safety Data Sheet:</u> info@fisag.co.nz	
1.4	<u>EMERGENCY TELEPHONE NUMBER NZ POISONS (24hr 7 days):</u>	0800POISON / 0800764766 Phone 111 for Fire, Ambulance or Police

SECTION 2: HAZARDS IDENTIFICATION

2.1	<u>CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:</u> This product is classified as hazardous under HSNO criteria: 3.1B, 6.4A <u>Signal word:</u> DANGER						
		<u>Danger class</u>	<u>Classification of the mixture</u>	<u>Cat.</u>	<u>Routes of exposure</u>	<u>Target organs</u>	<u>Effects</u>
	<u>Physicochemical:</u> 		Flam. Liq. 2:H225 / 3.1B Eye Irrit. 2:H319 / 6.4A	Cat.2 Cat.2	- Eyes	- Eyes	- Irritation
	<u>Human health:</u> 						
	<u>Environment:</u> Not classified						

Full text of hazard statements mentioned is indicated in section 16.

Note: When in section 3a range of percentages is used, the health and environmental hazards describe the effects of the highest concentration of each component, but below the maximum value.

2.2	<u>LABEL ELEMENTS:</u> 	This product is labelled with the signal word DANGER in accordance with the New Zealand HSNO regulations.
	<u>Hazard statements:</u> H225 H319	Highly flammable liquid and vapour. Causes serious eye irritation.
	<u>Precautionary statements:</u> P101 P102 P103 P210 P337+P313 P280F P305+P351+P338-P310 P501a	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. If eye irritation persists: Get medical attention. Wear protective gloves, clothing and eye protection. In case of inadequate ventilation wear respiratory protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. Dispose of contents/container in accordance with local regulations.
	<u>Supplementary statements:</u> None.	
	<u>Substances that contribute to classification:</u> None in a percentage equal to or higher than the limit for the name.	

2.3	<u>OTHER HAZARDS:</u> Hazards which do not result in classification but which may contribute to the overall hazards of the mixture: <u>Other physicochemical hazards:</u> Vapours may form a potentially flammable or explosive mixture with air. <u>Other adverse human health effects:</u> Prolonged exposure to vapours may produce transient drowsiness. Prolonged contact may cause skin dryness. <u>Other negative environmental effects:</u> Does not contain substances that fulfil the PBT/vPvB criteria.	
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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **SUBSTANCES:**
Not applicable (mixture). See section below for composition of Mixtures



3.2 **MIXTURES:**
This product is a mixture.
Chemical description: Solution of resin.

HAZARDOUS INGREDIENTS:

Substances taking part in a percentage higher than the exemption limit:

80 < 90%   **Ethyl alcohol (HSR: 002553)**
CAS: 64-17-5, EC: 200-578-6
HSNO Hazard Classification 3.1B, Flammable Liquid, Category 2: Highly flammable liquid and vapour (H225)
HSNO Hazard Classification 6.4A, Eye Irritation, Category 2: Causes serious eye irritation (H319)

5 < 10% **1-vinyl-2-pyrrolidone-vinyl acetate polymer**
CAS: 25086-89-9
HSNO Classification: Non Dangerous Goods
Aquatic Chronic, Category 4: May cause long-lasting harmful effects to aquatic life (H413)

1 < 2%   **n-butyl acetate (HSR 001091)**
CAS: 123-86-4, EC: 204-658-1
HSNO Hazard Classification: 3.1B, 6.1D, 6.1E, 6.3B, 6.4A, 9.1D

Impurities:

Does not contain other components or impurities which will influence the classification of the product.

Stabilizers: None

Reference to other sections:

For more information on hazardous ingredients, see sections 8, 11, 12 and 16.

SUBSTANCES OF VERY HIGH CONCERN (SVHC):

None

Substances SVHC subject to authorisation:

None

Substances SVHC candidate to be included:

None

PERSISTENT, BIOACCUMULABLE AND TOXIC PBT, OR VERY PERSISTENT AND VERY BIOACCUMULABLE VPVB SUBSTANCES:

Does not contain substances that fulfil the PBT/vPvB criteria.

SECTION 4: FIRST AID MEASURES

4.1

DESCRIPTION OF FIRST-AID MEASURES:



Symptoms may occur after exposure, so if there is direct exposure to the product, seek medical attention when in doubt or if symptoms persist. Never administer anything by mouth to an unconscious person. Rescuers should take care to protect themselves and use the recommended protective equipment if there is a possibility of exposure. Protective gloves should be worn when administering first aid.

Route of exposure

Symptoms and effects, acute and delayed

Description of first-aid measures

Inhalation:

Inhalation of solvent vapours may produce headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness.

Remove the patient out of the contaminated area into the fresh air. If breathing is irregular or stops, administer artificial respiration. If the person is unconscious, place in appropriate recovery position. Keep the patient warm and at rest until medical attention arrives.

Skin:

Prolonged contact may cause skin dryness.

Remove immediately contaminated clothing. Wash thoroughly the affected area with plenty of cold or lukewarm water and neutral soap, or use a suitable skin cleanser. Do not use solvents or thinners.

Eyes:



Contact with the eyes produces redness and pain.

Remove contact lenses. Rinse eyes copiously by irrigation with plenty of clean, fresh water for at least 15 minutes, holding the eyelids apart, until the irritation is reduced. Call a physician immediately.

Ingestion:

If swallowed, may cause irritation of the throat, abdominal pain, drowsiness, nausea, vomiting and diarrhoea.

If swallowed, seek medical advice immediately and show container or label. Do not induce vomiting, due to the risk of aspiration. Keep the patient at rest.

4.2

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

The main symptoms and effects are indicated in sections 4.1 and 11

4.3

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Notes to physician: Treatment should be directed at the control of symptoms and the clinical condition of the patient.

Antidotes and contraindications: Specific antidote not known.

SECTION 5: FIRE-FIGHTING MEASURES

5.1

EXTINGUISHING MEDIA:

Extinguishing powder or CO₂. In the case of more important fires, also alcohol resistant foam and water spray/mist. Do not use for extinguishing: direct water jet. Direct water jet may not be effective to extinguish the fire, since the fire may spread.

5.2

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Highly flammable liquid and vapour. As consequence of combustion or thermal decomposition, hazardous products may be produced: carbon monoxide, carbon dioxide, nitrogen oxides. Irritant. Exposure to combustion or decomposition products may be a hazard to health.

5.3

ADVICE FOR FIREFIGHTERS:

Special protective equipment: Depending on magnitude of fire, heat-proof protective clothing may be required, appropriate independent breathing apparatus, gloves, protective glasses or face masks and boots. If the fire-proof protective equipment is not available or is not being used, combat fire from a sheltered position or from a safe distance. The standard EN469 provides a basic level of protection for chemical incidents.

Other recommendations: Cool with water the tanks, cisterns or containers close to sources of heat or fire. Bear in mind the direction of the wind. Do not allow fire-fighting residue to enter drains, sewers or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

Eliminate any potential sources of ignition and ventilate the area when appropriate. Refrain from smoking. Avoid direct contact with this product and do not breathe in vapours. Keep unprotected individuals upwind.

6.2

ENVIRONMENTAL PRECAUTIONS:

Avoid contamination of drains, surface or subterranean water and soil. In the case of large scale spills or when the product contaminates lakes, rivers or sewages, inform the appropriate authorities in accordance with local regulations.

6.3

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Contain and clean up spills using non-combustible absorbent materials such as earth, sand, vermiculite, or diatomaceous earth. Preferably clean with a biodegradable detergent and avoid using solvents. Store any remains in a closed container.

6.4

REFERENCE TO OTHER SECTIONS:

For contact information in case of emergency, see section 1. For information on safe handling, see section 7.

For exposure controls and personal protection measures, see section 8. For waste disposal, follow the recommendations in section 13.

SECTION 7: HANDLING AND STORAGE

7.1

PRECAUTIONS FOR SAFE HANDLING:

Comply with the existing legislation on health and safety at work. [General recommendations:](#)

Avoid any type of leakage or escape. Keep the container tightly closed.

Recommendations for the prevention of fire and explosion risks:

Vapours are heavier than air, may spread along floors to a considerable distance, can form explosive mixtures with air and are able to reach distant ignition sources and flame up or explode. Due to its flammability, this material should only be used in areas from which all naked lights and other sources of ignition have been excluded and away from other heat or electrical sources. Switch mobile phones off and do not smoke. No tools with a potential for sparks should be used.

-Flash point	:	14* °C
-Autoignition temperature	:	421* °C
-Upper/lower flammability or explosive limits	:	3.3* - 19.0 % Volume 25°C

Recommendations for the prevention of toxicological risks:

Do not eat, drink or smoke in application and drying areas. After handling, wash hands with soap and water. For exposure controls and personal protection measures, see section 8.

Recommendations for the prevention of environmental contamination:

It is not considered a danger to the environment. In the case of accidental spillage, follow the instructions indicated in section 6.

7.2

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Forbid the entry to unauthorized persons. Keep out of reach of children. This product should be stored isolated from heat and electrical sources. Do not smoke in storage area. If possible, avoid direct contact with sunlight. Avoid extreme humidity conditions. In order to avoid leakages, the containers, after use, should be closed carefully and placed in a vertical position. For more information, see section 10.

<u>Class of storage</u>	:	According to current legislation.
<u>Maximum storage period</u>	:	24. months
<u>Temperature interval</u>	:	min: 5.°C, max: 40.°C (recommended).

Incompatible materials:

Keep away from reducing agents, oxidizing agents, acids, alkalis.

Type of packaging:

According to current legislation.

7.3

SPECIFIC END USES:

There are no specific recommendations for the use of this product beyond what has already been indicated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1

CONTROL PARAMETERS:

If a product contains ingredients that have exposure limits, it may be necessary to conduct personnel monitoring, workplace assessments, or biological tests. These measures help determine the effectiveness of ventilation or other control measures, and assess the need for respiratory protective equipment. Please refer to standards EN689, EN14042, and EN482, which provide methods for assessing exposure to chemical agents through inhalation, as well as exposure to chemical and biological agents. Additionally, national guidance documents should be consulted for methods to identify dangerous substances.

OCCUPATIONAL EXPOSURE LIMIT VALUES (TLV)

AGCIH 2017	Year	TLV-TWA		TLV-STEL		Remarks
		ppm	mg/m3	ppm	mg/m3	
Ethyl alcohol	1996	1000.	1880.	-	-	A4
n-butyl acetate	2015	50.	237.	150.	713.	

TLV - Threshold Limit Value, TWA - Time Weighted Average, STEL - Short Term Exposure Limit. A4 - Non classified as carcinogenic in humans.

BIOLOGICAL LIMIT VALUES:

Not available

DERIVED NO-EFFECT LEVEL (DNEL):

Derived no-effect level (DNEL) is a level of exposure that is considered safe, derived from toxicity data according to specific guidances included in REACH. DNEL values may differ from a occupational exposure limit (OEL) for the same chemical. OEL values may come recommended by a particular company, a government regulatory agency or an organization of experts. Although considered protective of health, the OEL values are derived by a process different of REACH.

Derived no-effect level, workers:

- Systemic effects, acute and chronic:

Ethyl alcohol
1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

DNEL Inhalation

mg/m3
s/r (a) 950. (c)
- (a) - (c)
960. (a) 480. (c)

DNEL Cutaneous

mg/kg bw/d
s/r (a) 343. (c)
- (a) - (c)
11.0 (a) 11.0 (c)

DNEL Oral

mg/kg bw/d
- (a) - (c)
- (a) - (c)
- (a) - (c)

Derived no-effect level, workers:

- Local effects, acute and chronic: Ethyl

alcohol
1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

DNEL Inhalation

mg/m3
1900. (a) s/r (c)
- (a) - (c)
960. (a) 480. (c)

DNEL Cutaneous

mg/cm2
s/r (a) s/r (c)
- (a) - (c)
s/r (a) s/r (c)

DNEL Eyes

mg/cm2
- (a) - (c)
- (a) - (c)
s/r (a) - (c)

Derived no-effect level, general population:

- Systemic effects, acute and chronic:

Ethyl alcohol
1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

DNEL Inhalation

mg/m3
s/r (a) 114. (c)
- (a) - (c)
860. (a) 102. (c)

DNEL Cutaneous

mg/kg bw/d
s/r (a) 206. (c)
- (a) - (c)
6.00 (a) 6.00 (c)

DNEL Oral

mg/kg bw/d
s/r (a) 87.0 (c)
- (a) - (c)
2.00 (a) 2.00 (c)

Derived no-effect level, general population:

- Local effects, acute and chronic: Ethyl

alcohol
1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

DNEL Inhalation

mg/m3
950. (a) s/r (c)
- (a) - (c)
860. (a) 102. (c)

DNEL Cutaneous

mg/cm2
s/r (a) s/r (c)
- (a) - (c)
s/r (a) s/r (c)

DNEL Eyes

mg/cm2
- (a) - (c)
- (a) - (c)
s/r (a) - (c)

(a) - Acute, short-term exposure, (c) - Chronic, long-term or repeated exposure. (-) - DNEL not available (without data of registration REACH).
s/r - DNEL not derived (not identified hazard).

PREDICTED NO-EFFECT CONCENTRATION (PNEC):Predicted no-effect concentration, aquatic organisms:

- Fresh water, marine water and intermittent release: Ethyl

alcohol
1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

PNEC Fresh water

mg/l
0.960
-
0.180

PNEC Marine

mg/l
0.790
-
0.0180

PNEC Intermittent

mg/l
2.75
-
0.360

- Wastewater treatment plants (STP) and sediments in fresh- and marine water:

Ethyl alcohol
1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

PNEC STP

mg/l
580.
-
35.6

PNEC Sediments

mg/kg dry weight
3.60
-
0.981

PNEC Sediments

mg/kg dry weight
2.90
-
0.0981

Predicted no-effect concentration, terrestrial organisms:

- Air, soil and effects for predators and humans: Ethyl

alcohol
1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

PNEC Air

mg/m3
-
-
s/r

PNEC Soil

mg/kg dry weight
0.630
-
0.0903

PNEC Oral

mg/kg bw/d
720.
-
n/b

(-) - PNEC not available (without data of registration REACH). s/r - PNEC not derived (not identified hazard).
n/b - PNEC not derived (not bio accumulative potential).

SECTION 8 CONTINUED: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.2

EXPOSURE CONTROLS:ENGINEERING MEASURES:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these measures are not sufficient to maintain concentrations of particulates and vapours below the Occupational Exposure Limits, suitable respiratory protection must be worn.

Protection of respiratory system: Avoid the inhalation of vapours.

Protection of eyes and face: It is recommended to install water taps or sources with clean water close to the working area.

Protection of hands and skin: It is recommended to install water taps or sources with clean water close to the working area. Barrier creams may help to protect the exposed areas of the skin. Barrier creams should not be applied once exposure has occurred.

OCCUPATIONAL EXPOSURE CONTROLS:

As a general measure on prevention and safety in the work place, we recommend the use of a basic personal protection equipment (PPE), with the corresponding EC marking. For more information on personal protective equipment (storage, use, cleaning, maintenance, type and characteristics of the PPE, protection class, marking, category, CEN norm, etc.), you should consult the informative brochures provided by the manufacturers of PPE. Full face masks may also be used if situations warrants. If inhalation risk exists wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS1716.

Mask:

A-type filter mask (brown) for gases and vapours of organic compounds with a boiling point higher than 65°C (EN14387). Class 1: low capacity up to 1000 ppm, Class 2: medium capacity up to 5000 ppm, Class 3: high capacity up to 10000 ppm. In order to obtain a suitable protection level, the filter class must be selected depending on the type and concentration of the contaminating agents present, in accordance with the specifications supplied by the filter producers. The respiratory equipment with filters does not work satisfactorily when the air contains high concentrations of vapour or oxygen content less than 18% in volume. In presence of high concentrations of vapour, use independent breathing apparatus.

Safety goggles:

Safety goggles designed to protect against liquid splashes, with suitable lateral protection (EN166). Clean daily and disinfect at regular intervals in accordance with the instructions of the manufacturer.

Face shield:

No.

Gloves:

Gloves resistant against chemicals (EN374). When repeated or prolonged contact with the product is expected, gloves of protection level 5 or higher should be used, with a breakthrough time of >240 min. When short contact with the product is expected, use gloves with a protection level 2 or higher should be used, with a breakthrough time >30 min. The breakthrough time of the selected glove material should be in accordance with the pretended period of use. There are several factors (for example, temperature), they do in practice the period of use of a protective glove resistant against chemicals is clearly lower than the established standard EN374. Due to the wide variety of circumstances and possibilities, the instructions/specifications provided by the glove supplier should be taken into account. The gloves should be immediately replaced when any sign of degradation is noted.

Boots:

No.

Apron:

No.

Clothing:

No.

Thermal hazards:

Not applicable (the product is handled at room temperature).

ENVIRONMENTAL EXPOSURE CONTROLS:

Avoid any spillage in the environment. Avoid any release into the atmosphere.

Spills on the soil: Prevent contamination of soil.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	<p>INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:</p> <p><u>Appearance</u></p> <ul style="list-style-type: none"> - Physical state : Liquid. - Odour : Characteristic - Odour threshold : Not available (mixture). <p><u>pH-value</u></p> <ul style="list-style-type: none"> - pH : Not applicable (non-aqueous media). <p><u>Change of state</u></p> <ul style="list-style-type: none"> - Melting point : Not applicable (mixture). - Initial boiling point : 78.3* °C at 760 mmHg <p><u>Density</u></p> <ul style="list-style-type: none"> - Vapour density : Not available - Relative density : 0.827* at 20/4°C - Relative water Stability - Decomposition temperature : Not available (technical impossibility to obtain the data). <p><u>Viscosity:</u></p> <ul style="list-style-type: none"> - Viscosity (flow time) : Not available <p><u>Volatility:</u></p> <ul style="list-style-type: none"> - Evaporation rate : Not available (lack of data). - Vapour pressure : 6* kPa at 20°C - Vapour pressure : 29.8* kPa at 50°C <p><u>Solubility:</u></p> <ul style="list-style-type: none"> - Solubility in water : Not available (lack of data). - Liposolubility : Not available (mixture untested). - Partition coefficient: n-octanol/water : Not applicable (mixture). <p><u>Flammability:</u></p> <ul style="list-style-type: none"> - Flash point : 14* °C - CLP 2.6.4.3. - Upper/lower flammability or explosive limits : 3.3* - 19.0 % Volume 25°C - Autoignition temperature : 421* °C <p><u>Explosive properties:</u> Vapours can form explosive mixtures with air and are able to flame up or explode in presence of an ignition source.</p> <p><u>Oxidizing properties:</u> Not classified as oxidizing product.</p> <p>*Estimated values based on the substances composing the mixture.</p>
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9.2	<p>OTHER INFORMATION:</p> <ul style="list-style-type: none"> - Solids : 10.6 % Weight - VOC (supply) : 88.6 % Weight - VOC (supply) : 732.9 g/l <p>The values indicated do not always coincide with product specifications. The data for the product specifications can be found in the corresponding technical data sheet. For additional information concerning physical and chemical properties related to safety and environment, see sections 7 and 12.</p>
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SECTION 10: STABILITY AND REACTIVITY

10.1	<p>REACTIVITY:</p> <p><u>Corrosivity to metals:</u> It is not corrosive to metals.</p> <p><u>Pyrophoric properties:</u> It is not pyrophoric.</p>
10.2	<p>CHEMICAL STABILITY:</p> <p>Stable under recommended storage and handling conditions.</p>
10.3	<p>POSSIBILITY OF HAZARDOUS REACTIONS:</p> <p>Possible dangerous reaction with oxidizing agents, acids, alkalis, peroxides.</p>
10.4	<p>CONDITIONS TO AVOID:</p> <p><u>Heat:</u> Keep away from sources of heat.</p> <p><u>Light:</u> If possible, avoid direct contact with sunlight.</p> <p><u>Air:</u> The product is not affected by exposure to air, but the containers should not be left open.</p> <p><u>Humidity:</u> Avoid extreme humidity conditions.</p> <p><u>Pressure:</u> Not relevant.</p> <p><u>Shock:</u> While the product is not sensitive to shocks, it is generally recommended to avoid bumps and rough handling to prevent dents and breakage of the packaging. This is especially important when handling the product in large quantities, and during loading and unloading operations.</p>
10.5	<p>INCOMPATIBLE MATERIALS:</p> <p>Keep away from reducing agents, oxidizing agents, acids, alkalis.</p>
10.6	<p>HAZARDOUS DECOMPOSITION PRODUCTS:</p> <p>As consequence of thermal decomposition, hazardous products may be produced: nitrogen oxides.</p>

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects.

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

ACUTE TOXICITY:

Dose and lethal concentrations for individual ingredients:

	<u>DL50</u> (OECD 401) mg/kg oral	<u>DL50</u> (OECD 402) mg/kg cutaneous	<u>CL50</u> (OECD 403) mg/m ³ 4h inhalation
Ethyl alcohol	10470. Rat	> 20000. Rabbit	> 20000. Rat
n-butyl acetate	10768. Rat	17600. Rabbit	> 23400. Rat

No observed adverse effect level

Not available

Lowest observed adverse effect level

Not available



INFORMATION ON LIKELY ROUTES OF EXPOSURE:

ACUTE TOXICITY:

Routes of exposure	Acute toxicity	Cat.	Main effects, acute and/or delayed	Criteria
<u>Inhalation:</u> Not classified	ATE > 20000 mg/m ³	-	Not classified as a product with acute toxicity if inhaled (based on available data, the classification criteria are not met).	CLP 3.1.3.6.
<u>Skin:</u> Not classified	ATE > 2000 mg/kg	-	Not classified as a product with acute toxicity in contact with skin (based on available data, the classification criteria are not met).	CLP 3.1.3.6.
<u>Eyes:</u> Not classified	Not available	-	Not classified as a product with acute toxicity by eye contact (lack of data).	CLP 1.2.5.
<u>Ingestion:</u> Not classified	ATE > 5000 mg/kg	-	Not classified as a product with acute toxicity if swallowed (based on available data, the classification criteria are not met).	CLP 3.1.3.6.

CLP 3.1.3.6: Classification of mixtures based on ingredients of the mixture (additivity formula).

CORROSION / IRRITATION / SENSITISATION:

Danger class	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
<u>Respiratory corrosion/irritation:</u> Not classified	-	-	Not classified as a product corrosive or irritant by inhalation (based on available data, the classification criteria are not met).	CLP 1.2.6. 3.8.3.4.
<u>Skin corrosion/irritation:</u> Not classified	-	-	Not classified as a product corrosive or irritant in contact with skin (based on available data, the classification criteria are not met).	CLP 3.2.3.3.
<u>Serious eye damage/irritation:</u> HSNO classification, 6.4A 	Eyes 	Cat.2	IRRITANT: Causes serious eye irritation.	CLP 3.3.3.3.
<u>Respiratory sensitisation:</u> Not classified	-	-	Not classified as a product sensitising by inhalation (based on available data, the classification criteria are not met).	CLP 3.4.3.3.
<u>Skin sensitisation:</u> Not classified	-	-	Not classified as a product sensitising by skin contact (based on available data, the classification criteria are not met).	CLP 3.4.3.3.

CLP 3.2.3.3: Classification of the mixture when data are available for all components or only for some components. CLP 3.3.3.3: Classification of the mixture when data are available for all components or only for some components. CLP 3.4.3.3: Classification of the mixture when data are available for all components or only for some components.

ASPIRATION HAZARD:

Danger class	Target organs	Cat.	Main effects, acute and/or delayed	Criteria
<u>Aspiration hazard:</u> Not classified	-	-	Not classified as a product hazardous by aspiration (based on available data, the classification criteria are not met).	CLP 3.10.3.3.

CLP 3.10.3.3: Classification of the mixture when data are available for all components or only for some components.

SPECIFIC TARGET ORGANS TOXICITY (STOT): Single exposure (SE) and/or Repeated exposure (RE):

Not classified as a dangerous product for target organs (based on available data, the classification criteria are not met).

SECTION 11 CONTINUED: TOXICOLOGICAL INFORMATION

CMR EFFECTS:**Carcinogenic effects:** It is not considered as a carcinogenic product.**Genotoxicity:** It is not considered as a mutagenic product.**Toxicity for reproduction:** Does not harm fertility. Does not harm the unborn child.**Effects via lactation:** Not classified as a hazardous product for children breast-fed.**DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE:****Routes of exposure:** May be absorbed by inhalation of vapour, through the skin and by ingestion.**Short-term exposure:** Exposure to solvent vapour concentrations in excess of the stated occupational exposure limit, may result in adverse health effects, such as mucous membrane and respiratory system irritation and adverse effects on kidneys, liver and central nervous system. Liquid splashes in the eyes may cause irritation and reversible damage. If swallowed, may cause irritation of the throat; other effects may be the same as described in the exposure to vapours.**Long-term or repeated exposure:** Repeated or prolonged contact may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.**INTERACTIVE EFFECTS:**

Not available.

INFORMATION ABOUT TOXICOCINETICS, METABOLISM AND DISTRIBUTION:**Dermal absorption:** Not available.**Basic toxicokinetic:** Not available.**ADDITIONAL INFORMATION:** Not available.

SECTION 12: ECOLOGICAL INFORMATION

No experimental ecotoxicological data on the preparation as such is available. The ecotoxicological classification for these mixture has been carried out by using the conventional calculation method of the Regulation (EU) No. 1272/2008~2017/776 (CLP).

12.1 **TOXICITY:****Acute toxicity in aquatic environment for individual ingredients :**

Ethyl alcohol

1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

CL50 (OECD 203)

mg/l.96hours

14200. Fishes

18. Fishes

CE50 (OECD 202)

mg/l.48hours

5012. Daphnia

> 1000. Daphnia

44. Daphnia

CE50 (OECD 201)

mg/l.72hours

275. Algae

675. Algae

No observed effect concentration: Not available**Lowest observed effect concentration:** Not available12.2 **PERSISTENCE AND DEGRADABILITY:**

Not available.

Aerobic biodegradation for individual ingredients :

Ethyl alcohol

1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

DQO

mgO2/g

1990.

2204.

%DBO/DQO

5 days 14 days 28 days

~ 74. ~ 95. ~ 99.

~ 80. ~ 82. ~ 83.

Biodegradability

Easy

Not easy

Easy

Note: Biodegradability data correspond to an average of data from various bibliographic sources.

12.3 **BIOACCUMULATIVE POTENTIAL:**

Not available.

Bioaccumulation for individual ingredients :

Ethyl alcohol

1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

logPow

-0.310

1.81

BCF

L/kg

3.2 (calculated)

6.9 (calculated)

Potential

Not available

Not available

Not available

12.4 **MOBILITY IN SOIL:**

Not available.

Mobility for individual ingredients:

Ethyl alcohol

1-vinyl-2-pyrrolidone-vinyl acetate polymer n-butyl acetate

logKoc

0.200

1.84

Constante de Henry

Pa· m3/mol 20°C

29. (calculated)

Potential

Not available

Not available

Not available

12.5 **RESULTS OF PBT AND VPVB ASSESMENT:**

Does not contain substances that fulfil the PBT/vPvB criteria.

12.6 **OTHER ADVERSE EFFECTS:****Ozone depletion potential:** Not available.**Photochemical ozone creation potential:** Not available.**Earth global warming potential:** In the event of fire or incineration, CO2 is released.**Endocrine disrupting potential:** Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1 Waste from residues/unused products:
Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Contaminated packaging:
Empty containers can be re-used with refill packs. Only empty packaging can be recycled.

SECTION 14: TRANSPORT INFORMATION

14.1 UN NUMBER: 1133

14.2 UN PROPER SHIPPING NAME:
ADHESIVES

14.3 TRANSPORT HAZARD CLASS(ES) AND PACKING GROUP:

14.4

(Special provision 640D)
VP<110 kPa50°C

Transport by road (ADR 2017) and
Transport by rail (RID 2017):

- Class:	3
- Packaging group:	II
- Classification code:	F1
- Tunnel restriction code:	(D/E)
- Transport category:	2, max. ADR 1.1.3.6. 333 L
- Limited quantities:	5 L (see total exemptions ADR 3.4)
- Transport document:	Consignment paper.
- Instructions in writing:	ADR 5.4.3.4



Transport by sea (IMDG 38-16):

- Class:	3
- Packaging group:	II
- Emergency Sheet (EmS):	F-E, S-D
- First Aid Guide (MFAG):	330
- Marine pollutant:	No.
- Transport document:	Shipping Bill of lading.



Transport by air (ICAO/IATA 2017):

- Class:	3
- Packaging group:	II
- Transport document:	Air Bill of lading.



Transport by inland waterways (ADN): Not available.

14.5 ENVIRONMENTAL HAZARDS:
Not applicable (not classified as hazardous for the environment).

14.6 SPECIAL PRECAUTIONS FOR USER:
Ensure that persons transporting the product know what to do in case of accident or spill. Always transport in closed containers that are upright and secure. Ensure adequate ventilation.

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:
Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 Country/ Region: New Zealand Inventory: NZIoC
Status: All components are listed in NZIoC
HSNO Approval: HSR002553: Denatured Ethanol Group Standard 2017
HSNO Approval: HSR001091: n BUTYL ACETATE
HSNO/HSWA Controls: Refer to the above Group Standard, Health and Safety at Work Act 2015, www.epa.govt.nz and www.worksafe.govt.nz for further information on controls.

15.2 CHEMICAL SAFETY ASSESSMENT:
A chemical safety assessment has not been carried out for this mixture.

SECTION 16: OTHER INFORMATION**ADVICES ON ANY TRAINING APPROPRIATE FOR WORKERS:**

It is recommended for all staff that will handle this product to carry out a basic training in occupational risk and prevention, in order to provide understanding and interpretation of Safety Data Sheets and labelling of products as well.

MAIN LITERATURE REFERENCES AND SOURCES FOR DATA:

- Supplier Safety Data Sheets
- EPA CCID <https://www.epa.govt.nz/database-search/chemical-classification-and-information-database-ccid/>
- Workplace Exposure Standards and Biological Exposure Indices. 9th Edition, published by WorkSafe New Zealand November 2017. <https://worksafe.govt.nz/topic-and-industry/work-related-health/monitoring/exposure-standards-and-biological-exposure-indices>
- US EPA Toxnet ChemIDPlus: <http://chem.sis.nlm.nih.gov/chemidplus> (December 18)
- OECD eChemPortal Substance Search <https://www.echemportal.org/echemportal/participant/page.action?pageID=9>
- European Chemicals Agency: ECHA, <http://echa.europa.eu/>
- Industrial Solvents Handbook, Ibert Mellan (Noyes Data Co., 1970)
- Threshold Limit Values, (AGCIH, 2016)
- European agreement on the international carriage of dangerous goods by road, (ADR 2017)
- International Maritime Dangerous Goods Code IMDG including Amendment 38-16 (IMO, 2016)

ABBREVIATIONS AND ACRONYMS:

List of abbreviations and acronyms that can be used (but not necessarily used) in this Safety Data Sheet:

- ACGIH: American Conference of Governmental Industrial Hygienists
- ADR: European agreement concerning the international carriage of dangerous goods by road.
- AS/NZS: Standards Australia & Standards New Zealand
- BCF: Bioconcentration Factor
- CAS: Chemical Abstracts Service
- CCID: Chemical Classification and Information Database
- CLP: European regulation on Classification, Labelling and Packaging of substances and chemical mixtures.
- DNEL: Derived No-Effect Level (REACH).
- EC 50: Effective Concentration, 50 per cent
- EINECS: European Inventory of Existing Commercial Chemical Substances.
- ELINCS: European List of Notified Chemical Substances.
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals of the United Nations.
- HSN0: Hazardous Substances and New Organisms Act 1996
- HSWA: Health and Safety at Work Act 2015
- IARC: International Agency for Research on Cancer
- IC 50: Half Maximal Inhibitory Concentration
- ICAO: International Civil Aviation Organization.
- IATA: International Air Transport Association.
- IMDG: International Maritime Code for Dangerous Goods.
- LC 50: Lethal Concentration, 50 per cent
- LD 50: Lethal Dose, 50 per cent
- LEL: Lower Explosive Limit
- LOAEL: Lowest-observed-adverse-effect level
- NOAEL: No-observed-adverse-effect-level
- NOEC: No Observed Effect Concentration
- NZIoC: New Zealand Inventory of Chemicals
- NZS 5433 New Zealand Standard Transport of Dangerous Goods on Land
- OECD: Organisation for Economic Co-operation and Development
- PBT: Persistent, bio accumulable and toxic substances.
- PNEC: Predicted No-Effect Concentration (REACH).
- REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
- RID: Regulations concerning the international transport of dangerous goods by rail.
- STEL: Short-Term-Exposure Limit
- SVHC: Substances of Very High Concern.
- TLV: Threshold Limit Value
- TWA: Time-Weighted Average
- UEL: Upper Explosive Limit
- UN: United Nations Organisation.
- UVCB: Substances of Unknown or Variable composition, complex reaction products or biological materials.
- VOC: Volatile Organic Compounds.
- vPvB: Very persistent and very bio accumulable substances.

HISTORY: Version: 1

Date of compilation: 07/08/2023

Classification of the preparation and its individual components has drawn on official and authoritative sources using available literature references. The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.