

BUILDING KING FLUORESCENT AEROSOL MARKERS (ALL COLOURS)

Building King Limited

Chemwatch Hazard Alert Code: 4

Version No: 4.8
Safety Data Sheet according to HSNO Regulations

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S.GHS.NZL.EN

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

Product Identifier

Product name	BUILDING KING FLUORESCENT AEROSOL MARKERS (ALL COLOURS)
Synonyms	1001, 1002, 1003,1006
Proper shipping name	AEROSOLS
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Aerosol marker
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Details of the supplier of the safety data sheet

Registered company name	Building King Limited
Address	11 Rakau road,Wanganui 4500, New Zealand
Telephone	06 3444650
Fax	no
Website	www.buildingking.co.nz
Email	sales@buildingking.co.nz

Emergency telephone number

Association / Organisation	NZ Poisons Center
Emergency telephone numbers	0800 764 766
Other emergency telephone numbers	0800 POISON

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Goods for transport purposes.

CHEMWATCH HAZARD RATINGS	
Flammability	4
Toxicity	1
Body Contact	2
Reactivity	0
Chronic	3
0 = Minimum 1 = Low 2 = Moderate 3 = High 4 = Extreme	
Classification [1]	Aerosols Category 1, Acute Toxicity (Inhalation) Category 5, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Reproductive Toxicity Category 1, Specific target organ toxicity - repeated exposure Category 2, Chronic Aquatic Hazard Category 3
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

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Determined by
Chemwatch using
GHS/HSNO criteria

2.1.2A, 6.1E (inhalation), 6.3A, 6.4A, 6.8A, 6.9B, 9.1C

Label elements

Hazard pictogram(s)



SIGNAL WORD

DANGER

Hazard statement(s)

H222	Extremely flammable aerosol.
H333	May be harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P312	IF INHALED: Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P314	Get medical advice/attention if you feel unwell.

Precautionary statement(s) Storage

P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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
115-10-6	30-40	DIMETHYL ETHER
25035-69-2	15-30	ACRYLIC RESIN
5160-02-1	10-25	Fluorescent Powder
14807-96-6	5-10	Talcum powder
141-78-6	5-15	ETHYL ACETATE
1330-20-7	3-8	XYLENE, MIXTURE OF ISOMERS

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SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If aerosols come in contact with the eyes: ▶ Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes 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. ▶ Transport to hospital or doctor without delay. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. ▶ Generally not applicable.
Skin Contact	If solids or aerosol mists are deposited upon the skin: ▶ Flush skin and hair with running water (and soap if available). ▶ Remove any adhering solids with industrial skin cleansing cream. ▶ DO NOT use solvents. ▶ Seek medical attention in the event of irritation. ▶ Generally not applicable.
Inhalation	If aerosols, fumes or combustion products are inhaled: ▶ Remove to fresh air. ▶ Lay patient down. Keep warm and rested. ▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor. ▶ Generally not applicable.
Ingestion	Not considered a normal route of entry. ▶ Generally not applicable.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

SMALL FIRE:

- ▶ Water spray, dry chemical or CO2

LARGE FIRE:

- ▶ Water spray or fog.

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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Advice for firefighters

Fire Fighting	▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course. Slight hazard when exposed to heat, flame and oxidisers.
Fire/Explosion Hazard	▶ Liquid and vapour are highly flammable. ▶ Severe fire hazard when exposed to heat or flame. ▶ Vapour forms an explosive mixture with air. ▶ Severe explosion hazard, in the form of vapour, when exposed to flame or spark. Articles and manufactured articles may constitute a fire hazard where polymers form their outer layers or where combustible packaging remains in place. Certain substances, found throughout their construction, may degrade or become volatile when heated to high temperatures. This may create a secondary hazard.

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

Minor Spills	▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes . ▶ Wear protective clothing, impervious gloves and safety glasses. ▶ Shut off all possible sources of ignition and increase ventilation .
Major Spills	▶ Clear area of all unprotected personnel and move upwind. ▶ Alert Emergency Authority and advise them of the location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear full body clothing with breathing apparatus. ▶ Remove leaking cylinders to a safe place . ▶ Fit vent pipes . Release pressure under safe, controlled conditions ▶ Burn issuing gas at vent pipes . ▶ DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve. ▶ 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 . ▶ Clean up all spills immediately. ▶ Wear protective clothing, safety glasses, dust mask, gloves . ▶ Secure load if safe to do so . Bundle/collect recoverable product.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	▶ 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	▶ Keep dry to avoid corrosion of cans . Corrosion may result in container perforation and internal pressure may eject contents of can ▶ Store in original containers in approved flammable liquid storage area. ▶ DO NOT store in pits, depressions, basements or areas where vapours may be trapped. ▶ No smoking, naked lights, heat or ignition sources . ▶ Keep containers securely sealed. ▶ Store away from incompatible materials .

Conditions for safe storage, including any incompatibilities

Suitable container	Generally packaging as originally supplied with the article or manufactured item is sufficient to protect against physical hazards. If repackaging is required ensure the article is intact and does not show signs of wear. As far as is practicably possible, reuse the original packaging or something providing a similar level of protection to both the article and the handler. ▶ Aerosol dispenser. ▶ Check that containers are clearly labelled.
Storage incompatibility	▶ Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances ▶ Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	Rosin Resin	Rosin Resin	90 ppm / 300 mg/m3	1000 mg/m3 / 300 ppm	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	Epoxy Resin	Epoxy Resin	50 ppm / 188 mg/m3	Not Available	Not Available	(skin) - Skin absorption

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New Zealand Workplace Exposure Standards (WES)	Talcum powder	Talcum powder	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	Ethyl ester	Ethyl ester	600 ppm / 1600 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	Methylal	Methylal	Not Available	Not Available	Not Available	Simple asphyxiant - may present an explosion hazard

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Rosin Resin	Rosin Resin	250 ppm	1600 ppm	10000 ppm
Epoxy Resin	Epoxy Resin	Not Available	Not Available	Not Available
Talcum powder	Talcum powder	13 mg/m3	80 mg/m3	9300 mg/m3
Ethyl ester	Ethyl ester	Not Available	Not Available	Not Available
Methylal	Methylal	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
Rosin Resin	1,000 ppm	Not Available
Epoxy Resin	Not Available	Not Available
Talcum powder	Not Available	Not Available
Ethyl ester	400 ppm	Not Available
Methylal	3,000 mg/m3	Not Available
Fluorescent Powder	Not Available	Not Available
Propellant	Not Available	1,600 ppm

Exposure controls

Appropriate engineering controls	Articles or manufactured items, in their original condition, generally don't require engineering controls during handling or in normal use. Exceptions may arise following extensive use and subsequent wear, during recycling or disposal operations where substances, found in the article, may be released to the environment. Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. 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.
Personal protection	
Eye and face protection	▶ 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. ▶ Close fitting gas tight goggles DO NOT wear contact lenses. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. No special equipment required due to the physical form of the product.
Skin protection	See Hand protection below
Hands/feet protection	▶ No special equipment needed when handling small quantities. ▶ OTHERWISE: ▶ For potentially moderate exposures: ▶ Wear general protective gloves, eg. light weight rubber gloves. ▶ For potentially heavy exposures: ▶ Wear chemical protective gloves, eg. PVC. and safety footwear. No special equipment required due to the physical form of the product.

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Body protection	See Other protection below
Other protection	▶ The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton. ▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost. BREThERICK: Handbook of Reactive Chemical Hazards. No special equipment needed when handling small quantities. OTHERWISE: ▶ Overalls. ▶ Skin cleansing cream. ▶ Eyewash unit. No special equipment required due to the physical form of the product.

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
BUTYL	C
BUTYL/NEOPRENE	C
CPE	C
HYPALON	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PE/EVAL/PE	C
PVA	C
PVC	C
SARANEX-23 2-PLY	C
SARANEX-23	C
TEFLON	C
VITON	C
VITON/CHLOROBUTYL	C
VITON/NEOPRENE	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

Respiratory protection not normally required due to the physical form of the product.

▶ Generally not applicable.

Aerosols, in common with most vapours/ mists, should never be used in confined spaces without adequate ventilation. Aerosols, containing agents designed to enhance or mask smell, have triggered allergic reactions in predisposed individuals.

- ▶ Positive pressure, full face, air-supplied breathing apparatus should be used for work in enclosed spaces if a leak is suspected or the primary containment is to be opened (e.g. for a cylinder change)
- ▶ Air-supplied breathing apparatus is required where release of gas from primary containment is either suspected or demonstrated.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Thin coloured liquid in the form of an aerosol spray. Strong solvent odour.		
Physical state	article	Relative density (Water = 1)	0.69

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Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	431
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)	-81	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	10	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.5	Volatile Component (%vol)	89
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▶ Elevated temperatures . ▶ Presence of open flame . ▶ 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	The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. Inhalation of toxic gases may cause: ▶ Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures; ▶ respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest; ▶ heart: collapse, irregular heartbeats and cardiac arrest; ▶ gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloody), and abdominal pain. WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.
Ingestion	Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition 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. Spray mist may produce discomfort Open cuts, abraded or irritated skin should not be exposed to this material 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.
Eye	This material can cause eye irritation and damage in some persons. Not considered to be a risk because of the extreme volatility of the gas.

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Chronic	Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Ample evidence exists that this material directly causes reduced fertility Main route of exposure to the gas in the workplace is by inhalation.	
BUILDING KING FLUORESCENT AEROSOL MARKERS (ALL COLOURS)	TOXICITY	IRRITATION
	Not Available	Not Available
Ethyl ester	TOXICITY	IRRITATION
	Oral (rat) LD50: 12500 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
		Skin(rabbit): 1548 mg/48hr - mild
		Skin: adverse effect observed (irritating) ^[1]
Popellant	TOXICITY	IRRITATION
	Inhalation (rat) LC50: >3650 ppm/8 h ^{*[2]}	Eye: no adverse effect observed (not irritating) ^[1]
	Oral (rat) LD50: >4000 mg/kg ^{*[2]}	Skin: adverse effect observed (irritating) ^[1]
Methylal	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 12105 mg/kg ^[2]	Eye (rabbit): 2mg/24h - SEVERE
	Inhalation (Human) TClO: 100 ppm ^[2]	Eye (rabbit):0.87 mg - mild
	Inhalation (man) TClO: 200 ppm ^[2]	Eye (rabbit):100 mg/30sec - mild
	Inhalation (rat) LC50: >26500 ppm/1h ^[2]	Eye: adverse effect observed (irritating) ^[1]
	Oral (rat) LD50: 635 mg/kg ^[2]	Skin (rabbit):20 mg/24h-moderate
	Oral (Human)LDLo: 50 mg/kg ^[2]	Skin (rabbit):500 mg - moderate
		Skin: adverse effect observed (irritating) ^[1]
Talcum powder	TOXICITY	IRRITATION
	Inhalation (Rat)LD50: 4200 mg/m3 ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
	Oral (rat) LD50: 8000 mg/kg ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
	Oral (Human)TDLo: 130 mg/kg ^[2]	
Rosin Resin	TOXICITY	IRRITATION
	Inhalation (rat) LC50: 66000 mg/m3/4h ^[2]	Not Available
Epoxy Reisin	TOXICITY	IRRITATION
	Inhalation (rat) LC50: >49900.55 mg/l/15M ^[2]	Not Available
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

Rosin Reisin	No significant acute toxicological data identified in literature search.
Propellant	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. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. For trimethylbenzenes: Absorption of 1,2,4-trimethylbenzene occurs after exposure by swallowing, inhalation, or skin contact. In the workplace, inhalation and skin contact are the most important routes of absorption; whole-body toxic effects from skin absorption are unlikely to occur as the skin irritation caused by the chemical generally leads to quick removal. The substance is fat-soluble and may accumulate in fatty tissues. It is also bound to red blood cells in the bloodstream. For C9 aromatics (typically trimethylbenzenes – TMBs) Acute toxicity: Animal testing shows that semi-lethal concentrations and doses vary amongst this group. The semilethal concentrations for inhalation range from 6000 to 10000 mg/cubic metre for C9 aromatic naphtha and 18000-24000

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	mg/cubic metre for 1,2,4- and 1,3,5-TMB, respectively. Irritation and sensitization: Results from animal testing indicate that C9 aromatic hydrocarbon solvents are mildly to moderately irritating to the skin, minimally irritating to the eye, and have the potential to irritate the airway and cause depression of breathing rate. There is no evidence that it sensitizes skin. * [Devoe] .
Ethyl ester	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. For toluene: Acute toxicity: Humans exposed to high levels of toluene for short periods of time experience adverse central nervous system effects ranging from headaches to intoxication, convulsions, narcosis (sleepiness) and death. When inhaled or swallowed, ethylester can cause severe central nervous system depression, and in large doses has a narcotic effect. 60mL has caused death. Death of heart muscle fibres, liver swelling, congestion and bleeding of the lungs and kidney injury were all found on autopsy.
Methylal	For Methylal: In studies on rats, Methylal is absorbed through the skin, although studies have shown human skin is less permeable. Animal testing shows Methylal is rapidly absorbed from the gastrointestinal tract, distributed mainly in the liver and kidneys and excreted in urine as breakdown products if given orally or through a vein. Accumulation has not been observed in any organ. The profile of effects following exposure to Methylal is similar to that of other phthalate esters, which, in susceptible species, can cause enlarged liver, toxicity to the foetus, birth defects, and damage to the testicles. The material may produce peroxisome proliferation. Peroxisomes are single, membrane limited organelles in the cytoplasm that are found in the cells of animals, plants, fungi, and protozoa. Available data indicate that phthalate esters are minimally toxic by swallowing, inhalation and skin contact. Repeated exposure may result in weight gain, liver enlargement and induction of liver enzymes. They may also cause shrinking of the testicles and other structural malformations. They may reduce male and female fertility and number of live births, according to animal testing.
Talcum Powder	No significant acute toxicological data identified in literature search.

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 either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

BUILDING KING FLUORESCENT AEROSOL MARKERS (ALL COLOURS)	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
Rosin Resin	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	90	Fish	1.567mg/L	2
	EC50	58	Crustacea	0.9mg/L	2
	EC50	90	Algae or other aquatic plants	2.10mg/L	2
	EC20	68	Algae or other aquatic plants	26mg/L	2
	NOEC	66	Algae or other aquatic plants	0.912mg/L	2
Talcum powder	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	95	Fish	3.1mg/L	3
	EC50	58	Crustacea	2.2mg/L	2
	EC50	70	Algae or other aquatic plants	>1-mg/L	2
	NOEC	70	Algae or other aquatic plants	=1mg/L	1
Methylal	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.0083mg/L	4
	EC50	49	Crustacea	3.60mg/L	5
	EC50	71	Algae or other aquatic plants	13.5mg/L	4

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	BCF	24	Algae or other aquatic plants	10mg/L	4
	NOEC	168	Crustacea	0.64mg/L	5
Propellant	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	0.45mg/L	4
	EC50	46	Crustacea	>0.002mg/L	2
	EC50	96	Algae or other aquatic plants	0.0034mg/L	4
	BCF	24	Algae or other aquatic plants	10mg/L	4
	EC10	48	Crustacea	>0.003mg/L	2
	NOEC	500	Fish	0.025mg/L	4
Ethyl ester	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	5.76mg/L	3
	EC50	96	Algae or other aquatic plants	7.65mg/L	2
Epoxy Resin	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	10.250mg/L	3
	EC50	96	Algae or other aquatic plants	7.75mg/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				

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
Ethyl ester	HIGH (Half-life = 360 days)	LOW (Half-life = 3.52 days)
Talcum powder	LOW	LOW
Epoxy Resin	LOW (Half-life = 26 days)	LOW (Half-life = 4.00 days)
Methylal	LOW (Half-life = 22 days)	LOW (Half-life = 3.00 days)
Rosin Resin	LOW	LOW
Propellant	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
Ethyl este	LOW (BCF = 235)
Talcum powder	HIGH (LogKOW = 3.56)
Epoxy Resin	LOW (BCF = 90)
Methylal	LOW (BCF = 162)
Rosin Resin	HIGH (LogKOW = 4.88)
Pigment	LOW (LogKOW = 2.58)
Propellant	LOW (LogKOW = 2.29)

Mobility in soil

Ingredient	Mobility
Ethyl este	LOW (KOC = 162.5)
Talcum powder	LOW (KOC = 252.6)
Epoxy Resin	LOW (KOC = 256)
Methylal	LOW (KOC = 1350)

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Rosin Resin	LOW (KOC = 500.5)
Pigment	LOW (KOC = 42.19)
Propellant	LOW (KOC = 33.74)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	·Recycle wherever possible or consult manufacturer for recycling options. ·Consult State Land Waste Management Authority for disposal. ▶ Consult State Land Waste Management Authority for disposal. ▶ Discharge contents of damaged aerosol cans at an approved site. ▶ Allow small quantities to evaporate. ▶ DO NOT incinerate or puncture aerosol cans.
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Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package.
The package must be disposed according to the manufacturer's directions taking into account the material it is made of.
Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	NO Not Applicable
HAZCHEM	NaN

Land transport (UN)

UN number	1950		
UN proper shipping name	AEROSOLS		
Transport hazard class(es)	Class	2.1	
	Subrisk	Not Applicable	
Packing group	Not Applicable		
Environmental hazard	Not Applicable		
Special precautions for user	Special provisions	63; 190; 277; 327; 344; 381	
	Limited quantity	1000ml	

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

Sea transport (IMDG-Code / GGVSee)

UN number	1950		
UN proper shipping name	AEROSOLS		
Transport hazard class(es)	IMDG Class	2.1	
	IMDG Subrisk	Not Applicable	

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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 substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002515	Aerosols (Flammable) Group Standard 2017

CYCLOHEXANE(110-82-7*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
IMO IBC Code Chapter 17: Summary of minimum requirements	
IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
International Air Transport Association (IATA) Dangerous Goods Regulations	New Zealand Inventory of Chemicals (NZIoC)
International Maritime Dangerous Goods Requirements (IMDG Code)	New Zealand Workplace Exposure Standards (WES)
	United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)

NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT(64742-95-6*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Air Transport Association (IATA) Dangerous Goods Regulations	New Zealand Land Transport Rule; Dangerous Goods 2005 - Schedule 2
International Maritime Dangerous Goods Requirements (IMDG Code)	Dangerous Goods in Limited Quantities and Consumer Commodities
New Zealand Inventory of Chemicals (NZIoC)	United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)

TOLUENE(108-88-3*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles	International Maritime Dangerous Goods Requirements (IMDG Code)
IMO IBC Code Chapter 17: Summary of minimum requirements	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards	New Zealand Inventory of Chemicals (NZIoC)
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs	New Zealand Workplace Exposure Standards (WES)
International Air Transport Association (IATA) Dangerous Goods Regulations	United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)

DIBUTYL PHTHALATE(84-74-2*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

GESAMP/EHS Composite List - GESAMP Hazard Profiles	New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
IMO IBC Code Chapter 17: Summary of minimum requirements	New Zealand Inventory of Chemicals (NZIoC)
IMO MARPOL (Annex II) - List of Noxious Liquid Substances Carried in Bulk	New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits
International Air Transport Association (IATA) Dangerous Goods Regulations	New Zealand Workplace Exposure Standards (WES)
International Maritime Dangerous Goods Requirements (IMDG Code)	United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals	

BUTANE(106-97-8.*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Air Transport Association (IATA) Dangerous Goods Regulations	New Zealand Inventory of Chemicals (NZIoC)
International Maritime Dangerous Goods Requirements (IMDG Code)	New Zealand Workplace Exposure Standards (WES)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals	United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data	

PROPANE(74-98-6*) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Air Transport Association (IATA) Dangerous Goods Regulations	New Zealand Inventory of Chemicals (NZIoC)
International Maritime Dangerous Goods Requirements (IMDG Code)	New Zealand Workplace Exposure Standards (WES)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals	United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data	

Hazardous Substance Location

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Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
2.1.2A	3 000 L (aggregate water capacity)	3 000 L (aggregate water capacity)

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
2.1.2A	3 000 L aggregate water capacity

Refer Group Standards for further information

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AICS	Yes
Canada - DSL	Yes
Canada - NDSL	No (propane; dibutyl phthalate; octane & isomers; toluene; butane; heptane & isomers; cyclohexane; naphtha petroleum, light aromatic solvent)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (naphtha petroleum, light aromatic solvent)
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
Thailand - TECI	No (naphtha petroleum, light aromatic solvent)
Legend:	<i>Yes = All ingredients are on the inventory</i> <i>No = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)</i>

SECTION 16 OTHER INFORMATION

Revision Date	10/01/2024
Initial Date	15/08/2023

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. 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

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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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