

1. Identification of Substance & Company

Product	
Product name	Bright Zinc
Other names	none
Product code	6081520007 - EDL
HSNO approval	Aerosols (Flammable, Toxic [6.7]) Group Standard 2017, HSR002517
UN number	1950
Proper shipping name	AEROSOL
DG class	2.1
Packaging group	NA
Hazchem code	2Y
Poison schedule	Not allocated
Uses	Used for protection of metal surfaces
Company Details	
Company	EDL Fasteners LTD
Address	70 Richard Pearse Drive Mangere, Manukau New Zealand
Telephone	+64 9 257 5536
Fax	+64 9 257 5844
Website	www.edlfast.co.nz

Emergency Telephone Number: 0800-764 766

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (Aerosols (Flammable, Toxic [6.7]) Group Standard 2017, HSR002517). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes

2.1.2A

6.1E (oral)
6.1E (inhalation)
6.3A
6.4A
6.7B
6.8B
6.9B
6.9B (narcotic)
9.1B

Hazard Statements

H222 - Extremely flammable aerosol.
H229 - Pressurized container: May burst if heated.
H303 - May be harmful if swallowed
H333 - May be harmful if inhaled.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H341 - Suspected of causing cancer.
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.



P210 - Keep away from ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Pressurized container: Do not pierce or burn, even after use.
P260 - Do not breathe spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/eye protection.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before re-use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P308+P313 - IF exposed or concerned: Get medical advice/ attention.
P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
P410 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P405 - Store locked up.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (% w/w)
Xylene	1330-20-7	>10-12.5%
Naphtha petroleum, heavy, hydrotreated	64742-48-9	>10-12.5%
n-Butyl acetate	123-86-4	>10-12.5%
Zinc powder - zinc dust (stabilized)	7440-66-6	10-12.5%
Ethyl acetate	141-78-6	5-7%
Acetone	67-64-1	3-5%
Ethyl benzene	100-41-4	2-3%
Quaternary ammonium compounds, coco alkylethyldimethyl, sulfates	68308-64-5	1-1.5%
n-Butanol	71-36-3	1-1.5%
Dimethyl ether (propellant)	115-10-6	propellant

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

You should call the National Poisons Centre if you feel that you may have been poisoned, harmed, or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). If medical advice is needed, have this SDS, product container or label at hand. If exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is recommended.

Exposure

Swallowed IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Contact a doctor if you feel unwell.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If symptoms persist, seek medical advice.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.

Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor. Call a POISON CENTER or doctor/physician if you feel unwell.



Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	This product is a flammable aerosol. This product has the potential to cause fire or to create an additional hazard during fire.
Suitable extinguishing substances:	Carbon Dioxide, Water jet spray, Chemical powder, foam.
Unsuitable extinguishing substances:	High volume water jet.
Products of combustion:	Product may decompose in a fire and produce toxic or corrosive fumes. Hazardous decomposition products include carbon oxides, hydrocarbons, toxic pyrolysis products
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	2Y

6. Accidental Release Measures

Containment	If greater than 3000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. Prevent product from entering environment.
Emergency procedures	In the event of a large spillage alert the fire brigade to location and give brief description of hazard. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain spill. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. If spray or gas escapes, increase ventilation.
Clean-up method	Collect product and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapour. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Store in original container. Aerosol is pressurized. Keep away from heat. Keep away from direct sunlight. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. Keep containers tightly closed in a cool, well-ventilated place. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA	WES-STEL
	Acetone	500ppm, 1185mg/m ³	1000ppm, 2375 mg/m ³
	Ethyl acetate	200ppm, 720mg/m ³	no data
	Xylene	50ppm, 217mg/m ³	no data
	Naphtha petroleum, heavy, hydrotreated	100ppm, 525mg/m ³	no data
	n-Butyl acetate	150ppm, 713mg/m ³	200ppm, 950 mg/m ³
	n-Butanol	Ceiling 50 ppm, 150 mg/m ³	no data
	Ethyl benzene	100ppm, 434mg/m ³	125ppm, 543mg/m ³
	Dimethyl ether (propellant)	400ppm, 766mg/m ³	500ppm, 958mg/m ³

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



To protect eyes, it is recommended that goggles, safety glasses or full face mask be worn. Avoid wearing contact lenses.

Skin



Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves, e.g. butyl rubber, NBR gloves. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.

Respiratory

A respirator with an organic vapour cartridge when airborne concentrations approach the WES (section 8) should be used. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

No additional information

9. Physical & Chemical Properties

Appearance	silver coloured liquid contained in aerosol can with dimethyl ether as propellant
Odour	characteristic odour
pH	no data
Vapour pressure	5.200hPa at 20°C
Viscosity	no data
Boiling point	-24°C
Volatile materials	no data
Freezing / melting point	no data
Solubility	partly miscible
Specific gravity / density	no data
Flash point	-42°C
Danger of explosion	When using: development of explosive vapour/air mixture possible.
Auto-ignition temperature	235°C
Upper & lower flammable limits	no data
Corrosiveness	not corrosive

10. Stability & Reactivity

Stability	This product is thermally stable when stored and used as directed.
Conditions to be avoided	Open flames, heat ignition sources.
Incompatible groups	Strong oxidising agents. Acids, bases.
Hazardous decomposition products	oxides of carbon
Hazardous reactions	Heating aerosol can result in increase pressure and possible danger of explosion.

11. Toxicological Information

Summary

IF SWALLOWED: may be harmful if swallowed. May cause headaches, dizziness, tiredness, nausea and vomiting.

IF ON SKIN: can cause severe skin irritation. Repeated exposure may cause dryness or cracking.

IF IN EYES: can cause severe eye irritation.

IF INHALED: vapours/spray may cause drowsiness or dizziness. May cause respiratory irritation.

CHRONIC: Prolonged exposure to xylene can cause nerve damage (CNS) and affect the liver and kidneys. Prolonged or repeated exposure to hydrocarbon solvents and acetone may affect the central nervous system. Ethylbenzene is a suspected carcinogen (Group 2B – IARC) if inhaled.

Supporting Data

Acute	Oral	No data for mixture is available. Using the LD ₅₀ 's for the ingredients, the calculated LD ₅₀ (oral, rat) for the mixture between 2000 mg/kg and 5000mg/kg. Data considered includes: Acetone 3000 mg/kg (mouse), Ethyl acetate 4100mg/kg (mouse), Xylene 1590 mg/kg (mouse), Naphtha petroleum, heavy, hydrotreated >15000mg/kg (rat), n-Butyl acetate 3200 mg/kg (rabbit), Aluminium no data, n-Butanol 790 mg/kg (rat), Dimethyl ether (propellant): no data.
	Dermal	No data for mixture is available. Using LD ₅₀ 's for ingredients, the estimated LD ₅₀ (dermal, rat) for the mixture is >5,000 mg/kg. Data considered includes: Acetone no data, Ethyl acetate no data, Naphtha petroleum, heavy, hydrotreated >3160 mg/kg (rabbit), n-Butyl acetate no data, aluminium no data, n-Butanol 3400 mg/kg (rabbit).
	Inhaled	No data for mixture is available. Inhalation may cause drowsiness or dizziness. Using LC ₅₀ 's for ingredients, the estimated LC ₅₀ (inhalation, rat) for the mixture is > 20mg/L (vapour). Data considered includes: Acetone no data, Ethyl acetate 5.41 mg/L (vapour), Xylene 27.6 mg/L (rat, vapour), Naphtha petroleum, heavy, hydrotreated >12mg/L (rat), n-Butyl acetate 2 mg/l (rat, dust/mist), n-Butanol: 24.3 mg/l (rat), Dimethyl ether (propellant): no data.
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye corrosive (n-Butanol) in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
Chronic	Sensitisation	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	The mixture is not considered to be a, because none of the ingredients present in greater than 0.1% are suspected to be a mutagen.
	Carcinogenicity	This mixture is a suspected carcinogen. It contains Ethylbenzene which classed is possibly carcinogenic to humans (Group 2B) by IARC. Xylene is Class 3 - unclassifiable as to carcinogenicity to humans.
	Reproductive / Developmental	This mixture is considered to be a suspected reproductive toxicant. Xylene has been shown to cause foetal toxicity in animals at doses which are maternally toxic. Not expected to impair fertility. Xylene is classed 6.8B by EPA.
	Systemic	Inhalation may result in headaches, Dizziness, nausea, effects/damages to the central nervous system, narcotic effect and unconsciousness. Xylene may affect organs: Hepatic (Liver), Neurological (Nervous System), Renal (Urinary System or Kidneys).
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is considered toxic to aquatic life with long lasting effects.

Supporting Data

Aquatic	No data for mixture is available. Using EC ₅₀ 's for ingredients, the estimated EC ₅₀ for the mixture is between 10 mg/L and 100 mg/L and at least one of the components is either bioaccumulative or persistent in the aquatic environment. Data considered includes: Acetone >100mg/L, Ethyl acetate no data, Naphtha petroleum, heavy, hydrotreated 2200mg/L (96hr, fish), 2.6 mg/L (96hr, Crustacea), n-Butyl acetate 18 mg/l (96hr, Fathead minnow), 32 mg/l (48hr, Brine shrimp), n-Butanol 1376mg/L (96hr, 96hr, fathead minnow). Zinc powder: 0.780mg/L (96hr, fathead minnow), 2.9mg/L (48hr, Daphnia magna), NOEC: 0.05mg/L (3h, green algae)
Bioaccumulation	No data for mixture.
Degradability	No data for mixture.
Soil	No data available for the mixture.
Terrestrial vertebrate	This product is not considered harmful to terrestrial vertebrates. No LC ₅₀ (diet) data for ingredients are available and the classification is based on the LD ₅₀ (oral) – see section 11 – oral toxicity.
Terrestrial invertebrate	The mixture is not considered harmful to terrestrial invertebrates.
Biocidal	Not applicable



13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Send empty aerosol can to landfill or similar. Do not puncture or incinerate.

14. Transport Information

New Zealand Land Transport:

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1950	Proper shipping name:	AEROSOLS
Class(es):	2.1	Packing group:	Not applicable
Precautions:	Flammable aerosol, marine pollutant	Hazchem code:	2Y

IMDG:			
UN number:	1950	Proper shipping name:	AEROSOLS
Class(es):	2.1	Packing group:	Not applicable
Precautions:	Flammable aerosol, Marine pollutant	EMS:	F-D, S-U

IATA:			
UN number:	1950	Proper shipping name:	AEROSOLS
Class(es):	2.1	Packing group:	Not applicable
Precautions:	Flammable aerosol, Marine pollutant	Guide number:	203

15. Regulatory Information

This product has been transferred to HSNO (Group standards), EPA approval code:, Aerosols (Flammable, Toxic [6.7]) Group Standard 2017, HSR002517)

Specific Controls

Key requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 3000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bundling and secondary containment	Not applicable.
Signage	Required if > 3000L is stored.
Location compliance certificate	Required if > 3000L is stored.
Flammable zone	Must be established if > 3000L.
Fire extinguisher	If > 3000L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations	
ACGIH	American Conference of Governmental Industrial Hygienists
Approval Code	EPA approval code:, Aerosols (Flammable, Toxic [6.7]) Group Standard 2017, HSR002517) Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	EU ECHA, ingredients SDS's, ChemIDplus, Suppliers SDS

Review

Date	Reason for review
February 2010	Not applicable – new SDS
October 2015	update: ERMA to EPA, OSH to Worksafe NZ, update of section 11 and 12, review of classification. Transport section.
March 2020	5 yearly update

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.

