

## 1. Identification of Substance & Company

### Product

<b>Product name</b>	Atorn Bright Zinc
<b>Other names</b>	none
<b>Product code</b>	6081520007 - EDL
<b>HSNO approval</b>	Aerosols (Flammable, Toxic [6.7]) Group Standard 2006, HSR002517
<b>UN number</b>	1950
<b>Proper shipping name</b>	AEROSOL
<b>Packaging group</b>	NA
<b>Hazchem code</b>	2Y
<b>Poison schedule</b>	Not allocated
<b>Uses</b>	Used for protection of metal surfaces

### Company Details

<b>Company</b>	<b>EDL Fasteners LTD</b>
<b>Address</b>	70 Richard Pearse Drive Mangere, Manukau New Zealand
<b>Telephone</b>	+64 9 257 5536
<b>Fax</b>	+64 9 257 5844
<b>Website</b>	www.edlfast.co.nz

**Emergency Telephone Number: 0800-764 766**

## 2. Hazard Identification

### Approval

This product has been approved under the Hazardous Substances and New Organisms Act (Aerosols (Flammable, Toxic [6.7]) Group Standard 2006, HSR002517), and is classified as follows:

<b>Classes</b>	<b>Hazard Statements</b>
2.1.2A	Extremely flammable aerosol. Pressurised container: May burst if heated.
6.1E	May be harmful if swallowed.
6.1E	May be harmful if inhaled.
6.3A	Causes skin irritation.
6.4A	Causes serious eye irritation.
6.7B	Suspected of causing cancer.
6.8B	Suspected of damaging the unborn child.
6.9B	May cause damage to organs.
6.9 (narcotic)	May cause drowsiness and dizziness.
9.1B	Toxic to the aquatic life with long lasting effects.

### SYMBOLS

**DANGER**



### Other Classifications

There are no other classifications that are known to apply.



### Precautionary Statements

Read label before use.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep out of reach of children.  
Keep away from sparks/open flames/hot surfaces. No smoking.  
Do not spray on an open flame or other ignition source.  
Pressurized container: Do not pierce or burn, even after use.  
Use only outdoors or in a well-ventilated area.  
Wash hands thoroughly after handling.  
Wear protective gloves/protective clothing. Wear eye/face protection.  
Do not breathe spray.  
Do not eat, drink or smoke when using this product.  
Avoid release to the environment. Collect spillage.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

Further precautionary statements can be found in Section 4 – First Aid.

### 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 MSDS, 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.  
Emergency shower, hand wash, soap. CPR training, oxygen mask.

#### 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

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

## 6. Accidental Release Measures

<b>Containment</b>	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.
<b>Emergency procedures</b>	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.
<b>Clean-up method</b>	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.
<b>Disposal</b>	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.
<b>Precautions</b>	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapour. Work up wind or increase ventilation.

## 7. Storage & Handling

<b>Storage</b>	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.
<b>Handling</b>	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 10mg/m<sup>3</sup> for dusts and mists when limits have not otherwise been established.

NZ Workplace Exposure Stds (2013)	Ingredient	WES-TWA	WES-STEL
	Acetone	500ppm, 1185mg/m <sup>3</sup>	1000ppm, 2375 mg/m <sup>3</sup>
	Ethyl acetate	200ppm, 720mg/m <sup>3</sup>	no data
	Xylene	50ppm, 217mg/m <sup>3</sup>	no data
	Naphtha petroleum, heavy, hydrotreated	100ppm, 525mg/m <sup>3</sup>	no data
	n-Butyl acetate	150ppm, 713mg/m <sup>3</sup>	200ppm, 950 mg/m <sup>3</sup>
	n-Butanol	Ceiling 50 ppm, 150 mg/m <sup>3</sup>	no data
	Ethyl benzene	100ppm, 434mg/m <sup>3</sup>	125ppm, 543mg/m <sup>3</sup>
	Dimethyl ether (propellant)	400ppm, 766mg/m <sup>3</sup>	500ppm, 958mg/m <sup>3</sup>

### 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 in Employment Act 1992 (HSE). 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

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

## 10. Stability & Reactivity

<b>Stability</b>	This product is thermally stable when stored and used as directed.
<b>Conditions to be avoided</b>	Open flames, heat ignition sources.
<b>Incompatible groups</b>	Strong oxidising agents. Acids, bases.
<b>Hazardous decomposition products</b>	oxides of carbon
<b>Hazardous reactions</b>	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

<b>Acute</b>	<b>Oral</b>	No data for mixture is available. Using the LD <sub>50</sub> 's for the ingredients, the calculated LD <sub>50</sub> (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.
	<b>Dermal</b>	No data for mixture is available. Using LD <sub>50</sub> 's for ingredients, the estimated LD <sub>50</sub> (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).
	<b>Inhaled</b>	No data for mixture is available. Inhalation may cause drowsiness or dizziness. Using LC <sub>50</sub> 's for ingredients, the estimated LC <sub>50</sub> (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.
	<b>Eye</b>	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.
	<b>Skin</b>	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
<b>Chronic</b>	<b>Sensitisation</b>	No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a sensitizer.
	<b>Mutagenicity</b>	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.
	<b>Carcinogenicity</b>	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.
	<b>Reproductive / Developmental</b>	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.
	<b>Systemic</b>	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).
	<b>Aggravation of existing conditions</b>	None known.

## 12. Ecological Data

### Summary

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

### Supporting Data

<b>Aquatic</b>	No data for mixture is available. Using EC <sub>50</sub> 's for ingredients, the estimated EC <sub>50</sub> 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)
<b>Bioaccumulation</b>	No data for mixture.
<b>Degradability</b>	No data for mixture.



<b>Soil</b>	No data available for the mixture.
<b>Terrestrial vertebrate</b>	This product is not considered harmful to terrestrial vertebrates. No LC <sub>50</sub> (diet) data for ingredients are available and the classification is based on the LD <sub>50</sub> (oral) – see section 11 – oral toxicity.
<b>Terrestrial invertebrate</b>	The mixture is not considered harmful to terrestrial invertebrates.
<b>Biocidal</b>	Not applicable

### 13. Disposal Considerations

<b>Restrictions</b>	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
<b>Disposal method</b>	Disposal of this product must comply with 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.
<b>Contaminated packaging</b>	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.

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

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

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

### 15. Regulatory Information

This product has been transferred to HSNO (Group standards), EPA approval code:, Aerosols (Flammable, Toxic [6.7]) Group Standard 2006, HSR002517)

#### Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing >10L.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Required if > 3000L is stored.
Approved handler	Required if > 3000L is handled or stored. (Flammable aerosol)
Tracking	Not required.
Bundling and secondary containment	Required if > 3000L is stored.
Signage	Required if > 3000L is stored in any one location.
Location Test certificate	Required if > 3000L is stored in any one location.
Flammable zone	Must be established if > 3000L is stored in any one location.
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, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans.

## 16. Other Information

<b>Abbreviations</b>	
<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>Approval Code</b>	EPA approval code:, Aerosols (Flammable, Toxic [6.7]) Group Standard 2006, HSR002517) Controls, EPA. <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>
<b>CAS Number</b>	Unique Chemical Abstracts Service Registry Number
<b>Ceiling</b>	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
<b>Controls Matrix</b>	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
<b>EC<sub>50</sub></b>	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
<b>ERMA</b>	Environmental Risk Management Authority (now EPA)
<b>EPA</b>	Environmental Protection Agency (previously known as ERMA)
<b>HAZCHEM Code</b>	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
<b>HSNO</b>	Hazardous Substances and New Organisms (Act and Regulations)
<b>IARC</b>	International Agency for Research on Cancer
<b>LEL</b>	Lower Explosive Limit
<b>LD<sub>50</sub></b>	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
<b>LC<sub>50</sub></b>	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
<b>MSDS (SDS)</b>	Material Safety Data Sheet (or Safety Data Sheet)
<b>STEL</b>	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
<b>TWA</b>	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
<b>UEL</b>	Upper Explosive Limit
<b>UN Number</b>	United Nations Number
<b>WES</b>	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed.

### References

<b>Data</b>	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID) <a href="http://www.epa.govt.nz/hs/compliance/chemicals.html">http://www.epa.govt.nz/hs/compliance/chemicals.html</a> , for specific chemicals.
<b>EPA Transfer Gazettes Controls Matrix</b>	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004) Part of the EPA New Zealand User Guide to the HSNO Control Regulations
<b>WES 2013</b>	The NZ Workplace Exposure Standards Effective from 2013, published by WorkSafe NZ and available on their web site – <a href="http://www.worksafe.govt.nz">www.worksafe.govt.nz</a> .
<b>Other References:</b>	Suppliers SDS

### Review

<b>Date</b>	<b>Reason for review</b>
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.

### 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](mailto:info@datachem.co.nz) or phone: +64 9 940 30 80.

