Professional- Galv Compound- Flat Bright Spray

Rust-Oleum Australia

Chemwatch Hazard Alert Code: **4**

Chemwatch: **27-1786**
Version No: **2.1.1.1**
Safety Data Sheet according to WHS and ADG requirements

Issue Date: **01/01/2013**
Print Date: **14/02/2017**
S.GHS.AUS.EN

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

Product Identifier

Product name	Professional- Galv Compound- Flat Bright Spray
Synonyms	PRO LSPR 6PK FLAT BRIGHT GALV COMPOUND
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	Application is by spray atomisation from a hand held aerosol pack Bright Galvanizing Compound.

Details of the supplier of the safety data sheet

Registered company name	**Rust-Oleum Australia**	**Zinsser (Zinsser and Company, Inc. (Manufacturer))**	**Haydn Brush Company Ltd**
Address	Unit 12, 4 Southridge St. Eastern Creek NSW 2766 Australia	173 Belmont Drive Somerset NJ 8875 United States	2 Link Drive Rolleston Christchurch 7675 New Zealand
Telephone	+61 2 8808 0600	+1 732 469 8100	+64 3 347 7770
Fax	+61 2 9680 0111	Not Available	Not Available
Website	www.rustoleum.com.au	Not Available	haydn.co.nz
Email	sales@rustoleum.com.au	Not Available	email@haydn.co.nz

Emergency telephone number

Association / Organisation	**Not Available**	**Not Available**	**Not Available**
Emergency telephone numbers	1800 039 008	Not Available	Not Available
Other emergency telephone numbers	Not Available	Not Available	Not Available

CHEMWATCH EMERGENCY RESPONSE

Primary Number	Alternative Number 1	Alternative Number 2
1800 039 008	1800 039 008	+612 9186 1132

Once connected and if the message is not in your prefered language then please dial 01

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

CHEMWATCH HAZARD RATINGS

		Min	Max
Flammability	4		
Toxicity	2		
Body Contact	2		
Reactivity	1		
Chronic	2		

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

Poisons Schedule	Not Applicable
Classification [1]	Aerosols Category 1, Gas under Pressure (Compressed gas), Acute Toxicity (Oral) Category 4, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Reproductive Toxicity Category 2, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Specific target organ toxicity - repeated exposure Category 2, Acute Aquatic Hazard Category 1, Chronic Aquatic Hazard Category 1
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI*

Label elements

Continued...

GHS label elements	
SIGNAL WORD	**DANGER**

Hazard statement(s)

H222	Extremely flammable aerosol.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
AUH044	Risk of explosion if heated under confinement

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. - 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.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
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.

Precautionary statement(s) Storage

P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7440-66-6	<40	zinc
108-88-3	<25	toluene
68476-85-7.	<20	hydrocarbon propellant
64742-82-1.	<15	naphtha, petroleum, hydrodesulfurised heavy
7429-90-5	<10	aluminium flake
8052-41-3.	<5	Stoddard Solvent
100-41-4	<1	ethylbenzene
		Note: Manufacturer has supplied full ingredient
		information to allow CHEMWATCH assessment.

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If aerosols come in contact with the eyes:

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	▸ 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.
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.
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.
Ingestion	▸ Avoid giving milk or oils. ▸ Avoid giving alcohol. Not considered a normal route of entry. ▸ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
- Absorption of zinc compounds occurs in the small intestine.
- The metal is heavily protein bound.
- Elimination results primarily from faecal excretion.
- The usual measures for decontamination (Ipecac Syrup, lavage, charcoal or cathartics) may be administered, although patients usually have sufficient vomiting not to require them.
- CaNa2EDTA has been used successfully to normalise zinc levels and is the agent of choice.

[Ellenhorn and Barceloux: Medical Toxicology]

Copper, magnesium, aluminium, antimony, iron, manganese, nickel, zinc (and their compounds) in welding, brazing, galvanising or smelting operations all give rise to thermally produced particulates of smaller dimension than may be produced if the metals are divided mechanically. Where insufficient ventilation or respiratory protection is available these particulates may produce "metal fume fever" in workers from an acute or long term exposure.
- Onset occurs in 4-6 hours generally on the evening following exposure. Tolerance develops in workers but may be lost over the weekend. (Monday Morning Fever)
- Pulmonary function tests may indicate reduced lung volumes, small airway obstruction and decreased carbon monoxide diffusing capacity but these abnormalities resolve after several months.
- Although mildly elevated urinary levels of heavy metal may occur they do not correlate with clinical effects.
- The general approach to treatment is recognition of the disease, supportive care and prevention of exposure.
- Seriously symptomatic patients should receive chest x-rays, have arterial blood gases determined and be observed for the development of tracheobronchitis and pulmonary edema.

[Ellenhorn and Barceloux: Medical Toxicology]
Following acute or short term repeated exposures to toluene:
- Toluene is absorbed across the alveolar barrier, the blood/air mixture being 11.2/15.6 (at 37 degrees C.) The concentration of toluene, in expired breath, is of the order of 18 ppm following sustained exposure to 100 ppm. The tissue/blood proportion is 1/3 except in adipose where the proportion is 8/10.
- Metabolism by microsomal mono-oxygenation, results in the production of hippuric acid. This may be detected in the urine in amounts between 0.5 and 2.5 g/24 hr which represents, on average 0.8 gm/gm of creatinine. The biological half-life of hippuric acid is in the order of 1-2 hours.
- Primary threat to life from ingestion and/or inhalation is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (eg cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 <50 mm Hg or pCO2 > 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial damage has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenaline) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use.

BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comments
o-Cresol in urine	0.5 mg/L	End of shift	B
Hippuric acid in urine	1.6 g/g creatinine	End of shift	B, NS
Toluene in blood	0.05 mg/L	Prior to last shift of workweek	

NS: Non-specific determinant; also observed after exposure to other material

B: Background levels occur in specimens collected from subjects NOT exposed

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- **DO NOT** use halogenated fire extinguishing agents.

Metal dust fires need to be smothered with sand, inert dry powders.
DO NOT USE WATER, CO2 or FOAM.
- Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1 or Met L-X to smother fire.
- Confining or smothering material is preferable to applying water as chemical reaction may produce flammable and explosive hydrogen gas.

SMALL FIRE:
- Water spray, dry chemical or CO2

LARGE FIRE:
- Water spray or fog.

Special hazards arising from the substrate or mixture

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Fire Incompatibility	▸ Reacts with acids producing flammable / explosive hydrogen (H2) gas ▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

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.
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. Combustion products include: , carbon monoxide (CO) , carbon dioxide (CO2) , other pyrolysis products typical of burning organic material. **Contains low boiling substance:** Closed containers may rupture due to pressure buildup under fire conditions.
HAZCHEM	Not Applicable

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	▸ 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.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	Radon and its radioactive decay products are hazardous if inhaled or ingested ▸ **DO NOT** allow clothing wet with material to stay in contact with skin ▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area. ▸ Prevent concentration in hollows and sumps.
Other information	▸ 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.

Conditions for safe storage, including any incompatibilities

Suitable container	▸ **CARE**: Packing of high density product in light weight metal or plastic packages may result in container collapse with product release ▸ Heavy gauge metal packages / Heavy gauge metal drums ▸ Aerosol dispenser. ▸ Check that containers are clearly labelled.
Storage incompatibility	Toluene: ▸ reacts violently with strong oxidisers, bromine, bromine trifluoride, chlorine, hydrochloric acid/ sulfuric acid mixture, 1,3-dichloro-5,5-dimethyl-2,4-imidazolidindione, dinitrogen tetraoxide, fluorine, concentrated nitric acid, nitrogen dioxide, silver chloride, sulfur dichloride, uranium fluoride, vinyl acetate ▸ forms explosive mixtures with strong acids, strong oxidisers, silver perchlorate, tetranitromethane ▸ is incompatible with bis-toluenediazo oxide ▸ attacks some plastics, rubber and coatings ▸ may generate electrostatic charges, due to low conductivity, on flow or agitation. For alkyl aromatics: The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. The most common and dominant one is the attack by oxidation at benzylic carbon as the intermediate formed is stabilised by resonance structure of the ring. ▸ Following reaction with oxygen and under the influence of sunlight, a hydroperoxide at the alpha-position to the aromatic ring, is the primary oxidation product

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- formed (provided a hydrogen atom is initially available at this position) - this product is often short-lived but may be stable dependent on the nature of the aromatic substitution; a secondary C-H bond is more easily attacked than a primary C-H bond whilst a tertiary C-H bond is even more susceptible to attack by oxygen
- Monoalkylbenzenes may subsequently form monocarboxylic acids; alkyl naphthalenes mainly produce the corresponding naphthalene carboxylic acids.
- Oxidation in the presence of transition metal salts not only accelerates but also selectively decomposes the hydroperoxides.
- Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents.
- Aromatics can react exothermically with bases and with diazo compounds.
- WARNING: Avoid or control reaction with peroxides. All *transition metal* peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively.
- The pi-complexes formed between chromium(0), vanadium(0) and other transition metals (haloarene-metal complexes) and mono-or poly-fluorobenzene show extreme sensitivity to heat and are explosive.
- Many metals may incandesce, react violently, ignite or react explosively upon addition of concentrated nitric acid.

Butane/ isobutane

- reacts violently with strong oxidisers
- reacts with acetylene, halogens and nitrous oxides
- is incompatible with chlorine dioxide, conc. nitric acid and some plastics
- may generate electrostatic charges, due to low conductivity, in flow or when agitated - these may ignite the vapour.

Segregate from nickel carbonyl in the presence of oxygen, heat (20-40 C)

Propane:

- reacts violently with strong oxidisers, barium peroxide, chlorine dioxide, dichlorine oxide, fluorine etc.
- liquid attacks some plastics, rubber and coatings
- may accumulate static charges which may ignite its vapours
- Reacts violently with caustic soda, other alkalies - generating heat, highly flammable hydrogen gas.
- If alkali is dry, heat generated may ignite hydrogen - if alkali is in solution may cause violent foaming
- 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

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	zinc	Fume (thermally generated) (respirable dust)	2 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	toluene	Toluene	191 mg/m3 / 50 ppm	574 mg/m3 / 150 ppm	Not Available	Sk
Australia Exposure Standards	hydrocarbon propellant	LPG (liquified petroleum gas)	1800 mg/m3 / 1000 ppm	Not Available	Not Available	Not Available
Australia Exposure Standards	naphtha, petroleum, hydrodesulfurised heavy	White spirits	790 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	aluminium flake	Aluminium (metal dust) / Aluminium (welding fumes) (as Al) / Aluminium, pyro powders (as Al)	10 mg/m3 / 5 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	Stoddard Solvent	White spirits	790 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	ethylbenzene	Ethyl benzene	434 mg/m3 / 100 ppm	543 mg/m3 / 125 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
zinc	Zinc	6 mg/m3	21 mg/m3	120 mg/m3
toluene	Toluene	Not Available	Not Available	Not Available
hydrocarbon propellant	Liquified petroleum gas; (L.P.G.)	65,000 ppm	2.30E+05 ppm	4.00E+05 ppm
naphtha, petroleum, hydrodesulfurised heavy	Naphtha, hydrotreated heavy; (Isopar L-rev 2)	350 mg/m3	1,800 mg/m3	40,000 mg/m3
naphtha, petroleum, hydrodesulfurised heavy	Petroleum distillates; petroleum ether; includes clay-treated light naphthenic [64742-45-6]; low boiling [68477-31-6]; petroleum extracts [64742-06-9]; petroleum base oil [64742-46-7]; petroleum 50 thinner, petroleum spirits [64475-85-0], Soltrol, VM&P naphtha [8032-32-4]; Ligroine, and paint solvent; petroleum paraffins C5-C20 [64771-72-8]; hydrotreated light naphthenic [64742-53-6]; solvent refined light naphthenic [64741-97-5]; and machine coolant 1	1,100 mg/m3	1,800 mg/m3	40,000 mg/m3
naphtha, petroleum, hydrodesulfurised heavy	Naphtha (coal tar); includes solvent naphtha, petroleum (64742-88-7), naphtha (petroleum) light aliphatic, rubber solvent (64742-89-8), heaevy catalytic cracked (64741-54-4), light straight run (64741-46-4), heavy aliphatic solvent (64742-96-7), high flash aromatic and aromatic solvent naphtha (64742-95-6)	1,200 mg/m3	6,700 mg/m3	40,000 mg/m3
naphtha, petroleum, hydrodesulfurised heavy	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	300 mg/m3	1,800 mg/m3	29500 mg/m3
Stoddard Solvent	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	300 mg/m3	1,800 mg/m3	29500 mg/m3
ethylbenzene	Ethyl benzene	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
zinc	Not Available	Not Available

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toluene	2,000 ppm	500 ppm
hydrocarbon propellant	19,000 [LEL] ppm	2,000 [LEL] ppm
naphtha, petroleum, hydrodesulfurised heavy	29,500 mg/m3 / 10,000 ppm / 10,000 [LEL] ppm	20,000 mg/m3 / 1,100 [LEL] ppm / 1,000 [LEL] ppm
aluminium flake	Not Available	Not Available
Stoddard Solvent	29,500 mg/m3	20,000 mg/m3
ethylbenzene	2,000 ppm	800 [LEL] ppm

Exposure controls

Appropriate engineering controls	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.
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.
Body protection	See Other protection below
Other protection	No special equipment needed when handling small quantities. **OTHERWISE:** ▸ Overalls. ▸ Skin cleansing cream. ▸ Eyewash unit. ▸ 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.
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the ***computer-generated*** selection:
Professional- Galv Compound- Flat Bright Spray

Material	CPI
BUTYL	C
CPE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PE/EVAL/PE	C
PVA	C
PVC	C
SARANEX-23	C
SARANEX-23 2-PLY	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

Respiratory protection

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.
Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 5 x ES	AX-AUS / Class 1	-	AX-PAPR-AUS / Class 1
up to 25 x ES	Air-line*	AX-2	AX-PAPR-2
up to 50 x ES	-	AX-3	-
50+ x ES	-	Air-line**	-

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

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

Continued...

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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Highly flammable liquid with solvent-like odour; mixes with water.

Physical state	Liquid	**Relative density (Water = 1)**	1.209
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Applicable	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	-37 - -240	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	-104	**Taste**	Not Available
Evaporation rate	1> Ether = 1	**Explosive properties**	Not Available
Flammability	HIGHLY FLAMMABLE.	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	9.5	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	0.7	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water (g/L)	Partly miscible	**pH as a solution (1%)**	Not Applicable
Vapour density (Air = 1)	>1	**VOC g/L**	384.32

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	Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. The acute toxicity of inhaled alkylbenzenes is best described by central nervous system depression. As a rule, these compounds may also act as general anaesthetics. Systemic poisoning produced by general anaesthesia is characterised by lightheadedness, nervousness, apprehension, euphoria, confusion, dizziness, drowsiness, tinnitus, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness and respiratory depression and arrest. Cardiac arrest may result from cardiovascular collapse. The paraffin gases are practically not harmful at low doses. Higher doses may produce reversible brain and nerve depression and irritation. 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. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal. Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination. **WARNING**:Intentional misuse by concentrating/inhaling contents may be lethal.

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Ingestion	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)
Skin Contact	Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. 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. Skin contact with the material may be harmful; systemic effects may result following absorption. The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.
Eye	Not considered to be a risk because of the extreme volatility of the gas. There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain. The liquid produces a high level of eye discomfort and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated.
Chronic	Harmful: danger of serious damage to health by prolonged exposure through inhalation. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Principal route of occupational exposure to the gas is by inhalation. Intentional abuse (glue sniffing) or occupational exposure to toluene can result in chronic habituation. Chronic abuse has caused inco-ordination, tremors of the extremeties (due to widespread cerebrum withering), headache, abnormal speech, temporary memory loss, convulsions, coma, drowsiness, reduced colour perception, blindness, nystagmus (rapid, involuntary eye movements), hearing loss leading to deafness and mild dementia. Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Welding or flame cutting of metals with zinc or zinc dust coatings may result in inhalation of zinc oxide fume; high concentrations of zinc oxide fume may result in "metal fume fever"; also known as "brass chills", an industrial disease of short duration. [I.L.O] Symptoms include malaise, fever, weakness, nausea and may appear quickly if operations occur in enclosed or poorly ventilated areas.

Professional- Galv Compound- Flat Bright Spray	TOXICITY	IRRITATION
	Not Available	Not Available

zinc	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 1130 mg/kg[2]	Not Available
	Oral (rat) LD50: >2000 mg/kg[1]	

toluene	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 12124 mg/kg[2]	Eye (rabbit): 2mg/24h - SEVERE
	Inhalation (rat) LC50: >26700 ppm/1hr[2]	Eye (rabbit):0.87 mg - mild
	Inhalation (rat) LC50: 49 mg/L/4hr[2]	Eye (rabbit):100 mg/30sec - mild
	Oral (rat) LD50: 636 mg/kg[2]	Skin (rabbit):20 mg/24h-moderate
		Skin (rabbit):500 mg - moderate

hydrocarbon propellant	TOXICITY	IRRITATION
	Inhalation (mouse) LC50: >15.6-<17.9 mm/l/2hr>[1]	Not Available
	Inhalation (mouse) LC50: >15.6-<17.9 mm/l/2hr>[1]	
	Inhalation (mouse) LC50: 410000 ppm/2hr[1]	
	Inhalation (mouse) LC50: 410000 ppm/2hr[1]	
	Inhalation (rat) LC50: >800000 ppm15 min[1]	
	Inhalation (rat) LC50: >800000 ppm15 min[1]	
	Inhalation (rat) LC50: 1354.944 mg/L15 min[1]	
	Inhalation (rat) LC50: 1355 mg/l15 min[1]	
	Inhalation (rat) LC50: 1442.738 mg/L15 min[1]	
	Inhalation (rat) LC50: 1442.738 mg/L15 min[1]	
	Inhalation (rat) LC50: 1443 mg/l15 min[1]	
	Inhalation (rat) LC50: 1443 mg/l15 min[1]	
	Inhalation (rat) LC50: 570000 ppm15 min[1]	

naphtha, petroleum, hydrodesulfurised heavy	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1900 mg/kg[1]	Not Available
	Dermal (rabbit) LD50: >1900 mg/kg[1]	

Continued...

	Dermal (rabbit) LD50: >1900 mg/kg[1]
	Dermal (rabbit) LD50: >1900 mg/kg[1]
	Dermal (rabbit) LD50: >3000 mg/kg[2]
	dermal (rat) LD50: 28000 mg/kg[2]
	Inhalation (rat) LC50: >1400 ppm/8hr[2]
	Inhalation (rat) LC50: 3400 ppm/4hr[2]
	Inhalation (rat) LC50: 61 mg/L/4hr[2]
	Oral (rat) LD50: >19650 mg/kg[2]
	Oral (rat) LD50: >4300 mg/kg[2]
	Oral (rat) LD50: >4500 mg/kg[1]
	Oral (rat) LD50: >4500 mg/kg[1]
	Oral (rat) LD50: >4500 mg/kg[1]
	Oral (rat) LD50: >4500 mg/kg[1]
	Oral (rat) LD50: >5000 mg/kg[2]

aluminium flake	TOXICITY	IRRITATION
	Oral (rat) LD50: >2000 mg/kg[1]	Not Available

Stoddard Solvent	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg[1]	Eye (hmn) 470 ppm/15m irrit.
	Inhalation (rat) LC50: >1400 ppm/8hr[2]	Eye (rabbit) 500 mg/24h moderate
	Oral (rat) LD50: >5000 mg/kg[1]	

ethylbenzene	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: ca.15432.6 mg/kg[1]	Eye (rabbit): 500 mg - SEVERE
	Inhalation (mouse) LC50: 35.5 mg/L/2hr[2]	Skin (rabbit): 15 mg/24h mild
	Inhalation (rat) LC50: 55 mg/L/2hr[2]	
	Oral (rat) LD50: 3500 mg/kg[2]	

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*

TOLUENE	For toluene: **Acute Toxicity** Humans exposed to intermediate to high levels of toluene for short periods of time experience adverse central nervous system effects ranging from headaches to intoxication, convulsions, narcosis, and death. Similar effects are observed in short-term animal studies. **Humans -** Toluene ingestion or inhalation can result in severe central nervous system depression, and in large doses, can act as a narcotic. The ingestion of about 60 mL resulted in fatal nervous system depression within 30 minutes in one reported case.
HYDROCARBON PROPELLANT	inhalation of the gas
STODDARD SOLVENT	**for petroleum:** This product contains benzene which is known to cause acute myeloid leukaemia and n-hexane which has been shown to metabolize to compounds which are neuropathic. This product contains toluene. There are indications from animal studies that prolonged exposure to high concentrations of toluene may lead to hearing loss. This product contains ethyl benzene and naphthalene from which there is evidence of tumours in rodents **Carcinogenicity:** Inhalation exposure to mice causes liver tumours, which are not considered relevant to humans.
ETHYLBENZENE	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Ethylbenzene is readily absorbed when inhaled, swallowed or in contact with the skin. It is distributed throughout the body, and passed out through urine. It may irritate the skin, eyes and may cause hearing loss if exposed to high doses. Long Term exposure may cause damage to the kidney, liver and lungs, including a tendency to cancer formation, according to animal testing. **NOTE:** Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA. **WARNING:** This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. Liver changes, utheral tract, effects on fertility, foetotoxicity, specific developmental abnormalities (musculoskeletal system) recorded.
ZINC & TOLUENE & ETHYLBENZENE	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.
HYDROCARBON PROPELLANT & NAPHTHA, PETROLEUM, HYDRODESULFURISED HEAVY & ALUMINIUM FLAKE	No significant acute toxicological data identified in literature search.

Acute Toxicity	✔	**Carcinogenicity**	⊘

Continued...

Skin Irritation/Corrosion	✔	**Reproductivity**	✔
Serious Eye Damage/Irritation	✔	**STOT - Single Exposure**	✔
Respiratory or Skin sensitisation	⊘	**STOT - Repeated Exposure**	✔
Mutagenicity	⊘	**Aspiration Hazard**	⊘

Legend: ✘ *– Data available but does not fill the criteria for classification*
✔ *– Data available to make classification*
⊘ *– Data Not Available to make classification*

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
zinc	LC50	96	Fish	0.00272mg/L	4
zinc	EC50	48	Crustacea	0.04mg/L	5
zinc	EC50	72	Algae or other aquatic plants	0.106mg/L	4
zinc	BCF	360	Algae or other aquatic plants	9mg/L	4
zinc	EC50	120	Fish	0.00033mg/L	5
zinc	NOEC	336	Algae or other aquatic plants	0.00075mg/L	4
toluene	LC50	96	Fish	0.0073mg/L	4
toluene	EC50	48	Crustacea	3.78mg/L	5
toluene	EC50	72	Algae or other aquatic plants	12.5mg/L	4
toluene	BCF	24	Algae or other aquatic plants	10mg/L	4
toluene	EC50	384	Crustacea	1.533mg/L	3
toluene	NOEC	168	Crustacea	0.74mg/L	5
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=13mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=30000mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	NOEC	72	Algae or other aquatic plants	=0.1mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	48	Crustacea	>100mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	96	Algae or other aquatic plants	=450mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	NOEC	72	Algae or other aquatic plants	<0.1mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	LC50	96	Fish	0.00746mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	EC50	48	Crustacea	0.058mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	BCF	96	Fish	0.2mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	EC20	168	Crustacea	0.11mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	NOEC	168	Crustacea	<=0.05mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	LC50	96	Fish	8.8mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	EC50	48	Crustacea	3.7mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=4700mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	NOEC	72	Algae or other aquatic plants	<0.1mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1

Continued...

naphtha, petroleum, hydrodesulfurised heavy	NOEC	72	Algae or other aquatic plants	<0.1mg/L	1
aluminium flake	LC50	96	Fish	0.078-0.108mg/L	2
aluminium flake	EC50	48	Crustacea	0.7364mg/L	2
aluminium flake	EC50	96	Algae or other aquatic plants	0.0054mg/L	2
aluminium flake	BCF	360	Algae or other aquatic plants	9mg/L	4
aluminium flake	EC50	120	Fish	0.000051mg/L	5
aluminium flake	NOEC	72	Algae or other aquatic plants	>=0.004mg/L	2
Stoddard Solvent	LC50	96	Fish	2.2mg/L	4
Stoddard Solvent	NOEC	3072	Fish	=1mg/L	1
ethylbenzene	LC50	96	Fish	0.0043mg/L	4
ethylbenzene	EC50	48	Crustacea	1.184mg/L	4
ethylbenzene	EC50	96	Algae or other aquatic plants	3.6mg/L	2
ethylbenzene	EC50	96	Crustacea	=0.49mg/L	1
ethylbenzene	NOEC	168	Crustacea	0.96mg/L	5
Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*				

Very toxic 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.
For Aromatic Substances Series:
Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs.
Atmospheric Fate: PAHs are 'semi-volatile substances" which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization.
Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive.
Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus.
For Petroleum Hydrocarbon Gases:
Environmental Fate: Petroleum hydrocarbon gases are primarily produced in petroleum refineries, or in gas plants that separate natural gas and natural gas liquids. This category contains 99 petroleum hydrocarbon gas substances, the majority of which never reach the consumer. Petroleum hydrocarbon gases do not contain inorganic compounds, (e.g. hydrogen sulfide, ammonia, and carbon monoxide), other than asphyxiant gases; the low molecular weight hydrocarbon molecules are primarily responsible for the hazard associated with these gases.
Atmospheric Fate: All components of these gases will evaporate to the air where interaction with hydroxyl radicals is an important fate process.
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
toluene	LOW (Half-life = 28 days)	LOW (Half-life = 4.33 days)
ethylbenzene	HIGH (Half-life = 228 days)	LOW (Half-life = 3.57 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
toluene	LOW (BCF = 90)
Stoddard Solvent	LOW (BCF = 159)
ethylbenzene	LOW (BCF = 79.43)

Mobility in soil

Ingredient	Mobility
toluene	LOW (KOC = 268)
ethylbenzene	LOW (KOC = 517.8)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: ▸ Reduction ▸ Reuse ▸ Recycling ▸ Disposal (if all else fails) This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. ▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ▸ It may be necessary to collect all wash water for treatment before disposal. ▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▸ Where in doubt contact the responsible authority. ▸ 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.

Continued...

SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	
HAZCHEM	Not Applicable

Land transport (ADG)

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 Limited quantity: 1000ml

Air transport (ICAO-IATA / DGR)

UN number	1950
UN proper shipping name	Aerosols, flammable; Aerosols, flammable (engine starting fluid)
Transport hazard class(es)	ICAO/IATA Class: 2.1 ICAO / IATA Subrisk: Not Applicable ERG Code: 10L
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special precautions for user	Special provisions: A145A167A802; A1A145A167A802 Cargo Only Packing Instructions: 203 Cargo Only Maximum Qty / Pack: 150 kg Passenger and Cargo Packing Instructions: 203; Forbidden Passenger and Cargo Maximum Qty / Pack: 75 kg; Forbidden Passenger and Cargo Limited Quantity Packing Instructions: Y203; Forbidden Passenger and Cargo Limited Maximum Qty / Pack: 30 kg G; Forbidden

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
Packing group	Not Applicable
Environmental hazard	Marine Pollutant
Special precautions for user	EMS Number: F-D, S-U Special provisions: 63 190 277 327 344 959 Limited Quantities: 1000ml

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

Continued...

ZINC(7440-66-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated Lists	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

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

Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated Lists	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

HYDROCARBON PROPELLANT(68476-85-7.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated Lists	International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft

NAPHTHA, PETROLEUM, HYDRODESULFURISED HEAVY(64742-82-1.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
Australia Hazardous Substances Information System - Consolidated Lists	
Australia Inventory of Chemical Substances (AICS)	International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft

ALUMINIUM FLAKE(7429-90-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated Lists	

STODDARD SOLVENT(8052-41-3.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated Lists	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

ETHYLBENZENE(100-41-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated Lists	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (toluene; zinc; ethylbenzene; Stoddard Solvent; hydrocarbon propellant; naphtha, petroleum, hydrodesulfurised heavy; aluminium flake)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (zinc; aluminium flake)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	*Y = All ingredients are on the inventory* *N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)*

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
hydrocarbon propellant	68476-85-7., 68476-86-8.
naphtha, petroleum, hydrodesulfurised heavy	64742-82-1., 64741-92-0., 8052-41-3., 1030262-12-4., 8032-32-4., 8030-30-6., 64742-88-7., 64742-89-8., 8002-05-9., 61789-95-5., 64742-48-9., 101795-02-2., 8031-06-9., 8030-31-7., 50813-73-5., 54847-97-1., 121448-83-7., 8031-38-7., 8031-39-8.
Stoddard Solvent	8052-41-3., 64742-47-8

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

Continued...

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

end of SDS