

Dy-Mark

Chemwatch: 18-3983 Version No: 14.1.1.1 Safety Data Sheet according to WHS and ADG requirements Chemwatch Hazard Alert Code: 4

Issue Date: 01/11/2019 Print Date: 24/03/2020 S.GHS.AUS.EN

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

Product Identifier

Product name	Dy-Mark Spray & Mark Fluorescent All Colours		
Synonyms	40011229 F/Pink Trade Pack, 40013522 Toluene Free, 40013523, 40013524; 40013525, 40013526, 40013528 Fluro Violet, 40013529; 40033522 F/Red 350g 360o, 40033523 F/Blue 350g 360o; 40033524 F/Green 350g 360o, 40033526 F/Orange 360d; 40033529 F/Pink 350g 360o		
Proper shipping name	AEROSOLS		
Other means of identification	Not Available		

Relevant identified uses	Application is by spray atomisation from a hand held aerosol pack
Relevant identified uses	Use according to manufacturer's directions.

Details of the supplier of the safety data sheet

Registered company name	Dy-Mark	
Address	89 Formation Street Wacol QLD 4076 Australia	
Telephone	+61 7 3327 3004	
Fax	+61 7 3327 3009	
Website	http://www.dymark.com.au	
Email	Email info@dymark.com.au	

Emergency telephone number

Association / Organisation	Dy-Mark	
Emergency telephone numbers	+61 7 3327 3099	
Other emergency telephone numbers	Not Available	

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	1		

Poisons Schedule	Not Applicable		
Classification [1] Flammable Aerosols Category 1, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single e Category 3 (narcotic effects), Acute Aquatic Hazard Category 3 Legend: 1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI			

Label elements

DANGER

SIGNAL WORD

Hazard statement(s)		
H222	Extremely flammable aerosol.	
H315	Causes skin irritation.	
H319	Causes serious eye irritation.	
H336	May cause drowsiness or dizziness.	
H402	2 Harmful to aquatic life.	
AUH044	Risk of explosion if heated under confinement.	

Precautionary statement(s) Prevention

, , , , , , , , , , , , , , , , , , , ,		
P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.	
P211	P211 Do not spray on an open flame or other ignition source.	
P251 Pressurized container: Do not pierce or burn, even after use.		
P271	P271 Use only outdoors or in a well-ventilated area.	
P261 Avoid breathing mist/vapours/spray.		
P273 Avoid release to the environment.		
P280	Wear protective gloves/protective clothing/eye protection/face protection.	

Precautionary statement(s) Response

P321	Specific treatment (see advice on this label).		
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.		
P312	Call a POISON CENTER or doctor/physician if you feel unwell.		
P337+P313	If eye irritation persists: Get medical advice/attention.		
P302+P352	2 IF ON SKIN: Wash with plenty of water.		
P304+P340	04+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.		
P332+P313	P332+P313 If skin irritation occurs: Get medical advice/attention.		

Precautionary statement(s) Storage

P405	Store locked up.	
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 to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
1330-20-7	10-30	xylene
67-64-1	10-30	acetone
Not Available	1-10	pigment and filler, non-hazardous
Not Available	1-10	resin, non-hazardous
115-10-6	10-30	dimethyl ether.
68476-85-7.	10-30	hydrocarbon propellant
Not Available		The hydrocarbon propellant used in the product contains less than 0.1% w/w 1,3 butadiene
Not Available		therefore product not classified as a carcinogen

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact

If aerosols come in contact with the eyes: Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.

	 Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
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.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. for lower alkyl ethers:

BASIC TREATMENT

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- A low-stimulus environment must be maintained
- Monitor and treat, where necessary, for shock.
- Anticipate and treat, where necessary, for seizures.
- DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

ADVANCED TREATMENT

- Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- ▶ Positive-pressure ventilation using a bag-valve mask might be of use.
- Monitor and treat, where necessary, for arrhythmias.
- Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- Drug therapy should be considered for pulmonary oedema.
- Hypotension without signs of hypovolaemia may require vasopressors.
- Treat seizures with diazepam.
- Proparacaine hydrochloride should be used to assist eye irrigation.

EMERGENCY DEPARTMENT

- Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.
- Ethers may produce anion gap acidosis. Hyperventilation and bicarbonate therapy might be indicated.
- Haemodialysis might be considered in patients with impaired renal function.
- Consult a toxicologist as necessary.
- BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

For acute or short term repeated exposures to acetone:

- Symptoms of acetone exposure approximate ethanol intoxication.
- About 20% is expired by the lungs and the rest is metabolised. Alveolar air half-life is about 4 hours following two hour inhalation at levels near the Exposure Standard; in overdose, saturable metabolism and limited clearance, prolong the elimination half-life to 25-30 hours.
- There are no known antidotes and treatment should involve the usual methods of decontamination followed by supportive care.

[Ellenhorn and Barceloux: Medical Toxicology]

Management:

Measurement of serum and urine acetone concentrations may be useful to monitor the severity of ingestion or inhalation.

Inhalation Management:

- Maintain a clear airway, give humidified oxygen and ventilate if necessary.
- If respiratory irritation occurs, assess respiratory function and, if necessary, perform chest X-rays to check for chemical pneumonitis.
- Consider the use of steroids to reduce the inflammatory response.
- Treat pulmonary oedema with PEEP or CPAP ventilation.

Dermal Management:

- + Remove any remaining contaminated clothing, place in double sealed, clear bags, label and store in secure area away from patients and staff.
- Irrigate with copious amounts of water.
- An emollient may be required.

Eye Management:

- Irrigate thoroughly with running water or saline for 15 minutes.
- ▶ Stain with fluorescein and refer to an ophthalmologist if there is any uptake of the stain.
- Oral Management:

No GASTRIC LAVAGE OR EMETIC

Encourage oral fluids
 Systemic Management:

- Monitor blood glucose and arterial pH.
- Ventilate if respiratory depression occurs
- If patient unconscious, monitor renal function.
- Symptomatic and supportive care.
- The Chemical Incident Management Handbook:

Guy's and St. Thomas' Hospital Trust, 2000 BIOLOGICAL EXPOSURE INDEX

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV): Determinant Sampling Time Index Acetone in uri

rine	Index 50 mg/L	Comments NS

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

For acute or short term repeated exposures to xylene

• Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal.

- Pulmonary absorption is rapid with about 60-65% retained at rest.
- Primary threat to life from ingestion and/or inhalation, is respiratory failure.
- ۶ Patients should be quickly evaluated for signs of respiratory distress (e.g. 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 injury 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.
- ٠ Epinephrine (adrenalin) 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.

BIOLOGICAL EXPOSURE INDEX - BEL

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
Methylhippu-ric acids in urine	1.5 gm/gm creatinine	End of shift	
	2 mg/min	Last 4 hrs of shift	

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

SMALL FIRE:

Water spray, dry chemical or CO2

LARGE FIRE:

· Water spray or fog.

Special hazards arising from the substrate or mixture

Advice for firefighters 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. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers from path of fire. Equipment should be thoroughly decontaminated after use. Liquid and vapour are highly flammable. Severe fire hazard, in the form of vapour, when exposed to flame or spark. Vapour forms an explosive mixture with air. Severe explosion hazard, in the form of vapour, when exposed to flames. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition with violent container rupture. Aerosol cans may explode on exposure to naked flames. Houtring containers may notic tures. Hazards may not be restricted to pressure effects. May emit acrid, poisonous or corrosive furmes. On combustion products include: carbon monoxide (CO2) onto monoxide (CO2) other pyrolysis products typical of burning organic material. Most Applicable 	Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
Fire Fighting May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Wear breathing apparatus plus protective gloves. Prevent, by any means available, splitage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use. Liquid and vapour are highly flammable. Severe fire hazard when exposed to heat or flame. Vapour froms an explosive mixture with air. Severe explosion hazard, in the form of vapour, when exposed to flame or spark. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition with violent container rupture. Aerosol cans may explode on exposure to naked flames. Rupturing containers may rocket and scatter burning materials. Hazards may not be restricted to pressure effects. May emit acrid, poisonous or corrosive furmes. On combustion, may emit toxic furmes of carbon monoxide (CO). Combustion products include: carbon monoxide (CO2) carbon mixel substance: Closed containers may rupture due to pressure builidup under fire conditions. Contains	Advice for firefighters	
 Fire/Explosion Hazard 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. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition with violent container rupture. Aerosol cans may explode on exposure to naked flames. Rupturing containers may rocket and scatter burning materials. Hazards may not be restricted to pressure effects. May emit acrid, poisonous or corrosive fumes. On combustion products include: carbon monoxide (CO) 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. 	Fire Fighting	 May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
HAZCHEM Not Applicable	Fire/Explosion Hazard	 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. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition with violent container rupture. Aerosol cans may explode on exposure to naked flames. Rupturing containers may rocket and scatter burning materials. Hazards may not be restricted to pressure effects. May emit acrid, poisonous or corrosive fumes. On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) other pyrolysis products typical of burning organic material.
	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.
- Wipe up.
- F If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.

Major Spills	 Remove leaking cylinders to a safe place if possible. Release pressure under safe, controlled conditions by opening the valve. 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. Prevent, by any means available, spillage from entering drains or water courses No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Water spray or fog may be used to disperse / absorb vapour. Absorb or cover spill with sand, earth, inert materials or vermiculite. If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated. Undamaged cans should be gathered and stowed safely. Collect residues and seal in labelled drums for disposal.
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Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. DO NOT incinerate or puncture aerosol cans. DO NOT spray directly on humans, exposed food or food utensils. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
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. Contents under pressure. Store away from incompatible materials. Store in a cool, dry, well ventilated area. Avoid storage at temperatures higher than 40 deg C. Store in an upright position. Protect containers against physical damage. Check regularly for spills and leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities



Х 0 - Must not be stored together

- May be stored together with specific preventions

- May be stored together +

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	xylene	Xylene (o-, m-, p- isomers)	80 ppm / 350 mg/m3	655 mg/m3 / 150 ppm	Not Available	Not Available
Australia Exposure Standards	acetone	Acetone	500 ppm / 1185 mg/m3	2375 mg/m3 / 1000 ppm	Not Available	Not Available
Australia Exposure Standards	dimethyl ether	Dimethyl ether	400 ppm / 760 mg/m3	950 mg/m3 / 500 ppm	Not Available	Not Available

Australia Exposure Standards	hydrocarbon propellant	LPG (liquified petroleum gas)	1000 ppm / 1 mg/m3	800	Not Available	Not Available	Not Available
EMERGENCY LIMITS							
Ingredient	Material name		TEEL-1		TEEL-2	TEEL-3	
xylene	Xylenes		Not Available		Not Available	Not Availa	ble
acetone	Acetone		Not Available		Not Available	Not Availa	ble
dimethyl ether	Methyl ether; (Dimethyl ether)		3,000 ppm		3800* ppm	7200* ppr	n
hydrocarbon propellant	Liquified petroleum gas; (L.P.G.)		65,000 ppm		2.30E+05 ppm	4.00E+05	ppm
Ingredient	Original IDLH			Revised I	DLH		
xylene	900 ppm	900 ppm		Not Available			
acetone	2,500 ppm	2,500 ppm		Not Available			
dimethyl ether	Not Available			Not Available			
hydrocarbon propellant	2,000 ppm			Not Available			

Exposure controls

	Engineering controls are used to remove a hazard or place a be highly effective in protecting workers and will typically be i The basic types of engineering controls are: Process controls which involve changing the way a job activit Enclosure and/or isolation of emission source which keeps a "adds" and "removes" air in the work environment. Ventilatior ventilation system must match the particular process and che Employers may need to use multiple types of controls to prev General exhaust is adequate under normal conditions. If risk obtain adequate protection. Provide adequate ventilation in warehouse or closed storage Air contaminants generated in the workplace possess varying circulating air required to effectively remove the contaminant.	ndependent of worker interactions to provide this hi y or process is done to reduce the risk. selected hazard "physically" away from the worker o can remove or dilute an air contaminant if designe emical or contaminant in use. rent employee overexposure. of overexposure exists, wear SAA approved respira areas. g "escape" velocities which, in turn, determine the "c	gh level of protection. and ventilation that strategically d properly. The design of a tor. Correct fit is essential to
	Type of Contaminant:		Speed:
Appropriate engineering	aerosols, (released at low velocity into zone of active generation	ration)	0.5-1 m/s
controls	direct spray, spray painting in shallow booths, gas discharg		1-2.5 m/s (200-500 f/min.)
	Within each range the appropriate value depends on:]
	Lower end of the range	Upper end of the range	
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents	
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity	
	3: Intermittent, low production.	3: High production, heavy use	
	4: Large hood or large air mass in motion	4: Small hood-local control only	
Personal protection	factors of 10 or more when extraction systems are installed o	r used.	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact l the wearing of lenses or restrictions on use, should be cr and adsorption for the class of chemicals in use and an a their removal and suitable equipment should be readily a remove contact lens as soon as practicable. Lens should a clean environment only after workers have washed har national equivalent] 	eated for each workplace or task. This should includ account of injury experience. Medical and first-aid privailable. In the event of chemical exposure, begin e I be removed at the first signs of eye redness or irrit	de a review of lens absorption ersonnel should be trained in ye irrigation immediately and ation - lens should be removed ir
Skin protection	See Hand protection below		
Hands/feet protection	 No special equipment needed when handling small quan OTHERWISE: For potentially moderate exposures: Wear general protective gloves, eg. light weight rubber g For potentially heavy exposures: Wear chemical protective gloves, eg. PVC. and safety for 	loves.	
Body protection	See Other protection below		
Other protection	No special equipment needed when handling small quantities OTHERWISE: • Overalls. • Skin cleansing cream.	3.	
	► Eyewash unit.		

Continued...

Dy-Mark Spray & Mark Fluorescent All Colours

Do not spray on hot surfaces.
 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.

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 *computergenerated* selection:

Dy-Mark Spray & Mark Fluorescent All Colours

Material	CPI
BUTYL	С
BUTYL/NEOPRENE	С
CPE	С
HYPALON	С
NAT+NEOPR+NITRILE	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE	С
NITRILE+PVC	С
PE/EVAL/PE	С
PVA	С
PVC	С
PVDC/PE/PVDC	С
SARANEX-23	С
SARANEX-23 2-PLY	С
TEFLON	С
VITON	С
VITON/NEOPRENE	С

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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 10 x ES	AX-AUS / Class 1	-	AX-PAPR-AUS / Class 1
up to 50 x ES	Air-line*	-	-
up to 100 x ES	-	AX-3	-
100+ x ES	-	Air-line**	-

* - Continuous-flow; ** - Continuous-flow or positive pressure demand 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.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

Appearance Flammable coloured liquid; partially miscible with water. Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant.				
Physical state	Liquid	Relative density (Water = 1)	Not Available	
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)	Not Available	Molecular weight (g/mol)	Not Applicable	
Flash point (°C)	-81 (propellant)	Taste	Not Available	
Evaporation rate	Not Available	Explosive properties	Not Available	
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available	
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available	
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available	
Vapour pressure (kPa)	Not Available	Gas group	Not Available	

Solubility in water	Partly miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Elevated temperatures. Presence of open flame. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	 co-ordination, and vertigo. There is some evidence to suggest that the material can cause respirate cause further lung damage. The acute toxicity of inhaled alkylbenzene is best described by central n anaesthetics. Whole body symptoms of poisoning include light-headedn dizziness, drowsiness, ringing in the ears, blurred or double vision, vomi convulsions, unconsciousness, depression of breathing, and arrest. Heat and low blood pressure may also occur. Alkylbenzenes are not generally toxic except at high levels of exposure. from the body. Inhalation of toxic gases may cause: Central Nervous System effects including depression, headache, co respiratory: acute lung swellings, shortness of breath, wheezing, rap. heart: collapse, irregular heartbeats and cardiac arrest; gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloo Following inhalation, ethers cause lethargy and stupor. Inhaling lower all seizures and possible coma. Material is highly volatile and may quickly form a concentrated atmosphereplace air in breathing zone, acting as a simple asphyxiant. This may hunhalation of high concentrations of gas/vapour causes lung irritation with dizziness, slowing of reflexes, fatigue and inco-ordination.	e accompanied by sleepiness, reduced alertness, loss of reflexes, lack of ory irritation in some persons. The body's response to such irritation can ervous system depression. These compounds may also act as general ess, nervousness, apprehension, a feeling of well-being, confusion, ting and sensations of heat, cold or numbness, twitching, tremors, it stoppage may result from cardiovascular collapse. A slow heart rate Their breakdown products have low toxicity and are easily eliminated infusion, dizziness, stupor, coma and seizures; bid breathing, other symptoms and respiratory arrest; dy), and abdominal pain. kyl ethers results in headache, dizziness, weakness, blurred vision, ere in confined or unventilated areas. The vapour may displace and appen with little warning of overexposure. h coughing and nausea, central nervous depression with headache and e lethal.
Ingestion	Accidental ingestion of the material may be damaging to the health of the Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environme Not a likely route of entry into the body in commercial or industrial enviro and be harmful or toxic if swallowed. Ingestion of alkyl ethers may produce stupor, blurred vision, headache, o asphyxia may result.	ents onments. The liquid may produce considerable gastrointestinal discomfort
Skin Contact	Skin contact with the material may be harmful; systemic effects may result The material may cause moderate inflammation of the skin either following cause contact dermatitis which is characterised by redness, swelling and The material may accentuate any pre-existing dermatitis condition Repeated exposure may cause skin cracking, flaking or drying following Spray mist may produce discomfort Alkyl ethers may defat and dehydrate the skin producing dermatoses. All depression. Open cuts, abraded or irritated skin should not be exposed to this mater	ng direct contact or after a delay of some time. Repeated exposure can d blistering. normal handling and use. bsorption may produce headache, dizziness, and central nervous system
Eye	Not considered to be a risk because of the extreme volatility of the gas. redness and tears. There is evidence that material may produce eye irritation in some perso inflammation may be expected with pain.	
Chronic	Prolonged or repeated skin contact may cause drying with cracking, irrita Substance accumulation, in the human body, may occur and may cause There is some evidence from animal testing that exposure to this materia Main route of exposure to the gas in the workplace is by inhalation. Chronic exposure to alkyl ethers may result in loss of appetite, excessive Women exposed to xylene in the first 3 months of pregnancy showed a a workers chronically exposed to xylene has demonstrated lack of genetic Exposure to the material for prolonged periods may cause physical defe Chronic solvent inhalation exposures may result in nervous system impar	some concern following repeated or long-term occupational exposure. al may result in toxic effects to the unborn baby. e thirst, fatigue, and weight loss. slightly increased risk of miscarriage and birth defects. Evaluation of toxicity. cts in the developing embryo (teratogenesis).
Dy-Mark Spray & Mark Fluorescent All Colours	TOXICITY Not Available	IRRITATION Not Available

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >1700 mg/kg ^[2]	Eye (human): 200 ppm irritant
Inhalation (rat) LC50: 4994.295 mg/l/4h ^[2]	Eye (rabbit): 5 mg/24h SEVERE
xylene Oral (rat) LD50: 3523-8700 mg/kg ^[2]	Eye (rabbit): 87 mg mild
	Eye: adverse effect observed (irritating) ^[1]
	Skin (rabbit):500 mg/24h moderate
	Skin: adverse effect observed (irritating) ^[1]
ΤΟΧΙΟΙΤΥ	IRRITATION
Dermal (rabbit) LD50: =20 mg/kg ^[2]	Eye (human): 500 ppm - irritant
Inhalation (rat) LC50: 100.2 mg/l/8hr ^[2]	Eye (rabbit): 20mg/24hr -moderate
Oral (rat) LD50: 1800-7300 mg/kg ^[2]	Eye (rabbit): 3.95 mg - SEVERE
acetone	Eye: adverse effect observed (irritating) ^[1]
	Skin (rabbit): 500 mg/24hr - mild
	Skin (rabbit):395mg (open) - mild
	Skin: no adverse effect observed (not irritating) $\left[1 \right]$
ΤΟΧΙΟΙΤΥ	IRRITATION
dimethyl ether Inhalation (rat) LC50: 309 mg/l/4H ^[2]	Not Available
ΤΟΧΙΟΙΤΥ	IRRITATION
drocarbon propellant Not Available	Not Available
Legend: 1. Value obtained from Europe ECHA Registered Substance specified data extracted from RTECS - Register of Toxic Eff	es - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherw fect of chemical Substances
drocarbon propellant Not Available Legend: 1. Value obtained from Europe ECHA Registered Substance	Not Available es - Acute toxicity 2.* Value obtained from m

XYLENE	Reproductive effector in rats The material may produce severe irritation to the eye produce conjunctivitis. The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or lim		epeated or prolonged exposure to irritants may
HYDROCARBON PROPELLANT	No significant acute toxicological data identified in lite	rature search. inhalation of the gas	
Dy-Mark Spray & Mark Fluorescent All Colours & ACETONE	For acetone: The acute toxicity of acetone is low. Acetone is not a s testing shows acetone may cause macrocytic anaemi metre has not caused neurobehavioural deficits.		es fat from the skin, and it also irritates the eye. Animal t exposure to acetone at a level of 2375 mg/cubic
XYLENE & ACETONE	The material may cause skin irritation after prolonged vesicles, scaling and thickening of the skin.	or repeated exposure and may produ	ice on contact skin redness, swelling, the production of
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×
		Logand: Y - Data either	not available or does not fill the criteria for classification

Legend: X –

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

SECTION 12 ECOLOGICAL INFORMATION

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURC
Dy-Mark Spray & Mark Fluorescent All Colours	Not Available	Not Available	Not Available	Not Available	Not Availabl
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURC
	LC50	96	Fish	2.6mg/L	2
xylene	EC50	48	Crustacea	1.8mg/L	2
	EC50	72	Algae or other aquatic plants	3.2mg/L	2
	NOEC	73	Algae or other aquatic plants	0.44mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURC
acetone	LC50	96	Fish	5-540mg/L	2

	5050	10		100	
	EC50	48	Crustacea	>100mg/L	4
	EC50	96	Algae or other aquatic plants	20.565mg/L	4
	NOEC	240	Crustacea	1-866mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	1-783.04mg/L	2
dimethyl ether	EC50	48	Crustacea	>4400.0mg/L	2
	EC50	96	Algae or other aquatic plants	154.917mg/L	2
	NOEC	48	Crustacea	>4000mg/L	1
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	24.11mg/L	2
hydrocarbon propellant	EC50	96	Algae or other aquatic plants	7.71mg/L	2
	LC50	96	Fish	24.11mg/L	2
	EC50	96	Algae or other aquatic plants	7.71mg/L	2
Legend:	V3.12 (QSAR) -	1. IUCLID Toxicity Data 2. Europe ECHA Regist Aquatic Toxicity Data (Estimated) 4. US EPA, E apan) - Bioconcentration Data 7. METI (Japan)	Ecotox database - Aquatic Toxicity Data 5. E		

Harmful to aquatic organisms.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
xylene	HIGH (Half-life = 360 days)	LOW (Half-life = 1.83 days)
acetone	LOW (Half-life = 14 days)	MEDIUM (Half-life = 116.25 days)
dimethyl ether	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
xylene	MEDIUM (BCF = 740)
acetone	LOW (BCF = 0.69)
dimethyl ether	LOW (LogKOW = 0.1)

Mobility in soil

Ingredient	Mobility
acetone	HIGH (KOC = 1.981)
dimethyl ether	HIGH (KOC = 1.292)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	 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. Bury residues and emptied aerosol cans at an approved site.
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SECTION 14 TRANSPORT INFORMATION

Marine Pollutant	NO
HAZCHEM	Not Applicable

UN number

1950

Issue Date: 01/11/2019 Print Date: 24/03/2020

Dy-Mark Spray & Mark Fluorescent All Colours

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 provisions63 190 277 327 344 381Limited quantity1000ml	

Air transport (ICAO-IATA / DGR)

UN number	1950			
UN proper shipping name	Aerosols, flammable (engine starting fluid); Aerosols, flammable			
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	2.1 Not Applicable 10L		
Packing group	Not Applicable			
Environmental hazard	Not Applicable			
Special precautions for user	Special provisions		A145 A167 A802; A1 A145 A167 A802	
	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	Not Applicable		
Special precautions for user	EMS NumberF-D , S-USpecial provisions63 190 277 327 344 381 959Limited Quantities1000 ml		

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

XYLENE IS FOUND ON THE FOLLOWING REGULATORY LISTS		
Australia Exposure Standards	Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -	
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals	Part 2, Section Seven - Appendix I	
Australia Hazardous chemicals which may require Health Monitoring	Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -	
Australia Inventory of Chemical Substances (AICS)	Schedule 5	
	Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6	
	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs	
ACETONE IS FOUND ON THE FOLLOWING REGULATORY LISTS		
Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)	
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals	Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5	

DIMETHYL ETHER IS FOUND ON THE FOLLOWING REGULATORY LISTS

Appendix B (Part 3)

Australia Exposure Standards

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS)

HYDROCARBON PROPELLANT IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS)

National Inventory Status

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 $\,$

Chemical Footprint Project - Chemicals of High Concern List

National Inventory	Status	
Australia - AICS	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (acetone; xylene; dimethyl ether; hydrocarbon propellant)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - ARIPS	Yes	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)	

SECTION 16 OTHER INFORMATION

Revision Date	01/11/2019
Initial Date	27/11/2008

SDS Version Summary

Version	Issue Date	Sections Updated
13.1.1.1	11/08/2016	Classification
14.1.1.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC – TWA: Permissible Concentration-Time Weighted Average PC – STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit₀ IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL: No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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