# **SAFETY DATA SHEET**

## DY-MARK SPRAY & MARK -FLUORESCENT ALL COLOURS (DME/LPG FORMULA)

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### Section 1 - Identification

### **Product Identifier**

DY-MARK SPRAY & MARK - FLUORESCENT ALL COLOURS (DME/LPG FORMULA)

### Company Name

DY-MARK

### Address

89 Formation Street Wacol QLD 4076 Australia

### Telephone/Fax Number

Tel: +61 7 3327 3004 Fax: +61 7 3327 3009

#### Emergency Phone Number +61 7 3327 3099

E-mail Address info@dymark.com.au

### Recommended use of the chemical and restrictions on use

Relevant identified uses:

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

### **Other Names**

Name
40011229 FLUORO PINK TRADE PACK
40013522 TOLUENE FREE
40013523, 40013524, 40013525, 40013526, 40013528 FLUORO VIOLET
40013529, 40033522 FLUORO RED 350G 360°
40033523 FLUORO BLUE 350G 360°
40033524 FLUORO GREEN 350G 360°
40033526 FLUORO ORANGE 360°
40033529 FLUORO PINK 350G 360°
40010629 FLUORO PINK

### **Additional Information**

Website: http://www.dymark.com.au

#### Chemical Name: Not Applicable Other means of identification: Not Available

### Section 2 - Hazard(s) Identification

#### GHS classification of the substance/mixture

[1] Aerosols Category 1, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Acute Aquatic Hazard Category 3

Signal Word (s)

DANGER

#### Hazard Statement (s)

AUH044 Risk of explosion if heated under confinement.

H222+H229 Extremely flammable aerosol; Pressurized container: may burst if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H402 Harmful to aquatic life.

#### Pictogram (s)

Flame, Exclamation mark



#### **Precautionary Statement – Prevention**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

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 and face protection.

#### **Precautionary Statement – Response**

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/doctor/physician/first aider/ if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

### **Precautionary Statement – 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 – Disposal**

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

### **Other Information**

Classification of the substance or mixture: HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Legend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

### Section 3 - Composition and Information on Ingredients

Ingredients				
Name	CAS	Proportion		
Xylene	1330-20-7	10-30 %weight		
Acetone	67-64-1	10-30 %weight		
Pigment and filler, non-hazardous	Not Available	1-10 %weight		
resin, non-hazardous	Not Available	1-10 %weight		
Dimethyl ether	115-10-6	10-30 %weight		
Hydrocarbon propellant	68476-85-7.	10-30 %weight		

### **Other Information**

Substances:

See section below for composition of Mixtures

Mixtures:

The hydrocarbon propellant used in the product contains less than 0.1% w/w 1,3 butadiene therefore product not classified as a carcinogen

Legend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; \* EU IOELVs available

### Section 4 - First Aid Measures

### 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.

### Skin

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.

### Eye

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.

### Indication of immediate medical attention and special treatment needed if necessary

Treat symptomatically. For lower alkyl ethers:

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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: Acetone in urine

Sampling Time: End of shift

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.

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.

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 - BEI** 

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

Determinant: Methylhippu-ric acids in urine Index: 1.5 gm/gm creatinine Sampling Time: End of shift Index: 2 mg/min Sampling Time: Last 4 hrs of shift

### **Section 5 - Firefighting Measures**

### **Specific Methods**

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 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.

### Specific hazards arising from the chemical

Fire Incompatibility:

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

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.

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. Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

### Hazchem Code

Not Applicable

#### **Decomposition Temperature** Not Available

**Extinguishing Media - Small Fires** Water spray, dry chemical or CO2

#### **Extinguishing Media - Large Fires** Water spray or fog.

Section 6 - Accidental Release Measures

Emergency Procedures

See section 8 Environmental Precautions

See section 12

### Methods and materials for containment and cleaning up (Small 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. 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.

### Methods and materials for containment and cleaning up (Large 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.

### **Other Information**

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

Suitable container: Aerosol dispenser. Check that containers are clearly labelled.

Storage incompatibility: Avoid reaction with oxidising agents

FLAMMABLES: + EXPLOSIVES: X ACUTE TOXIC: + **OXIDISERS: X** HARMFUL: + **IRRITANT: +** CORROSIVE: +

- X Must not be stored together
- O May be stored together with specific preventions
- + May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

### Section 8 - Exposure Controls and Personal Protection

#### **Occupational exposure limit values**

Control parameters: Occupational Exposure Limits (OEL): INGREDIENT DATA: Source: Australia Exposure Standards Ingredient: xylene Material name: Xylene (o-, m-, p- isomers) TWA: 80 ppm / 350 mg/m3 STEL: 655 mg/m3 / 150 ppm Peak: Not Available Notes: Not Available

Source: Australia Exposure Standards Ingredient: acetone Material name: Acetone TWA: 500 ppm / 1185 mg/m3 STEL: 2375 mg/m3 / 1000 ppm Peak: Not Available Notes: Not Available

Source: Australia Exposure Standards Ingredient: dimethyl ether Material name: Dimethyl ether TWA: 400 ppm / 760 mg/m3 STEL: 950 mg/m3 / 500 ppm Peak: Not Available Notes: Not Available

Source: Australia Exposure Standards Ingredient: hydrocarbon propellant Material name: LPG (liquified petroleum gas) TWA: 1000 ppm / 1800 mg/m3 STEL: Not Available Peak: Not Available Notes: Not Available

Emergency Limits: Ingredient: xylene TEEL-1: Not Available TEEL-2: Not Available TEEL-3: Not Available

Ingredient: acetone TEEL-1: Not Available TEEL-2: Not Available TEEL-3: Not Available

Ingredient: dimethyl ether TEEL-1: 3,000 ppm TEEL-2: 3800\* ppm TEEL-3: 7200\* ppm

Ingredient: hydrocarbon propellant TEEL-1: 65,000 ppm TEEL-2: 2.30E+05 ppm TEEL-3: 4.00E+05 ppm

Ingredient: xylene Original IDLH: 900 ppm Revised IDLH: Not Available

Ingredient: acetone Original IDLH: 2,500 ppm Revised IDLH: Not Available

Ingredient: dimethyl ether Original IDLH: Not Available Revised IDLH: Not Available

Ingredient: hydrocarbon propellant Original IDLH: 2,000 ppm Revised IDLH: Not Available

### **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. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.

Provide adequate ventilation in warehouse or closed storage areas.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant: Aerosols, (released at low velocity into zone of active generation) Speed: 0.5-1 m/s

Type of Contaminant: Direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion) Speed: 1-2.5 m/s (200-500 f/min.)

Within each range the appropriate value depends on:

### Lower end of the range:

- 1: Room air currents minimal or favourable to capture
- 2: Contaminants of low toxicity or of nuisance value only.
- 3: Intermittent, low production.
- 4: Large hood or large air mass in motion

Upper end of the range:

- 1: Disturbing room air currents
- 2: Contaminants of high toxicity
- 3: High production, heavy use
- 4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

### **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: up to 10 x ES Half-Face Respirator: AX-AUS / Class 1 Full-Face Respirator: -Powered Air Respirator: AX-PAPR-AUS / Class 1

Required Minimum Protection Factor: up to 50 x ES Half-Face Respirator: Air-line\* Full-Face Respirator: -Powered Air Respirator: -

Required Minimum Protection Factor: up to 100 x ES Half-Face Respirator: -Full-Face Respirator: AX-3 Powered Air Respirator: -

Required Minimum Protection Factor: 100+ x ES Half-Face Respirator: -Full-Face Respirator: Air-line\*\* Powered Air Respirator: -

\* - 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.

### **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. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

### **Hand 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.

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: Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula)

Material: BUTYL CPI: C

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

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

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

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

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

#### **Body Protection**

No special equipment needed when handling small quantities.

OTHERWISE:

Overalls.

Skin cleansing cream.

Eyewash unit.

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.

### **Section 9 - Physical and Chemical Properties**

Properties	Description	Properties	Description
Form	Liquid	Appearance	Flammable coloured liquid; partially miscible with water. Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant.
Odour	Not Available	Melting/Freezing Point	Not Available
Boiling Point	Not Available	Decomposition Temperature	Not Available
Solubility in Water	Partly miscible	рН	Not Applicable (as supplied) Not Available (as a solution (%))
Vapour Pressure	Not Available	Relative Vapour Density (Air=1)	Not Available
Evaporation Rate	Not Available	Physical State	Liquid
Odour Threshold	Not Available	Viscosity	Not Available
Volatile Component	Not Available	Partition Coefficient: n-octanol/water (log value)	Not Available
Surface Tension	Not Available	Flash Point	-81°C (propellant)
Flammability	HIGHLY FLAMMABLE.	Auto-Ignition Temperature	Not Available
Explosion Limit - Upper	Not Available	Explosion Limit - Lower	Not Available
Explosion Properties	Not Available	Molecular Weight	Not Applicable
Oxidising Properties	Not Available	Initial boiling point and boiling range	Not Available
Relative Density	Not Available (Water = 1)		

**Other Information** Taste: Not Available Gas group: 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**

### **Toxicology Information**

Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula) TOXICITY: Not Available IRRITATION: Not Available

Xylene TOXICITY: Dermal (rabbit) LD50: >1700 mg/kg[2] Inhalation (Rat) LC50; 5922 ppm4h[1] Oral (Mouse) LD50; 1548 mg/kg[2] IRRITATION: Eye (human): 200 ppm irritant Eye (rabbit): 5 mg/24h SEVERE Eye (rabbit): 5 mg/24h SEVERE Eye (rabbit): 87 mg mild Eye: adverse effect observed (irritating)[1] Skin (rabbit): 500 mg/24h moderate Skin: adverse effect observed (irritating)[1]

Acetone TOXICITY:

Dermal (rabbit) LD50: 20 mg/kg[2] Inhalation (Mouse) LC50; 44 mg/L4h[2] Oral (Rat) LD50; 1738 mg/kg[1] IRRITATION: Eye (human): 500 ppm - irritant Eye (rabbit): 20mg/24hr -moderate Eye (rabbit): 3.95 mg - SEVERE Eye: adverse effect observed (irritating)[1] Skin (rabbit): 500 mg/24hr - mild Skin (rabbit): 395mg (open) - mild Skin: no adverse effect observed (not irritating)[1]

Dimethyl ether TOXICITY: Inhalation (Rat) LC50; >20000 ppm4h[1] IRRITATION: Not Available

Hydrocarbon propellant TOXICITY: Inhalation (Rat) LC50; 658 mg/l4h[2] IRRITATION: Not Available

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

#### XYLENE:

Reproductive effector in rats The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may 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 limited in animal testing.

#### HYDROCARBON PROPELLANT:

No significant acute toxicological data identified in literature search. inhalation of the gas

Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula) & ACETONE: For acetone:

The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitizer, but it removes fat from the skin, and it also irritates the eye. Animal testing shows acetone may cause macrocytic anaemia. Studies in humans have shown that exposure to acetone at a level of 2375 mg/cubic metre has not caused neurobehavioural deficits.

### XYLENE & ACETONE:

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.

Acute Toxicity: Data either not available or does not fill the criteria for classification

### Ingestion

Accidental ingestion of the material may be damaging 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

Not a likely route of entry into the body in commercial or industrial environments. The liquid may produce considerable gastrointestinal discomfort and be harmful or toxic if swallowed.

Ingestion of alkyl ethers may produce stupor, blurred vision, headache, dizziness and irritation of the nose and throat. Respiratory distress and asphyxia may result.

### Inhalation

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 alkylbenzene is best described by central nervous system depression. These compounds may also act as general anaesthetics. Whole body symptoms of poisoning include light-headedness, nervousness, apprehension, a feeling of well-being, confusion, dizziness, drowsiness, ringing in the ears, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness, depression of breathing, and arrest. Heart stoppage may result from cardiovascular collapse. A slow heart rate and low blood pressure may also occur.

Alkylbenzenes are not generally toxic except at high levels of exposure. Their breakdown products have low toxicity and are easily eliminated from the body.

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.

Following inhalation, ethers cause lethargy and stupor. Inhaling lower alkyl ethers results in headache, dizziness, weakness, blurred vision, seizures and possible coma.

Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.

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.

### Skin

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.

The material may accentuate any pre-existing dermatitis condition.

Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.

Spray mist may produce discomfort.

Alkyl ethers may defat and dehydrate the skin producing dermatoses. Absorption may produce headache, dizziness, and central nervous system depression.

Open cuts, abraded or irritated skin should not be exposed to this material.

### Skin Corrosion/Irritation

Data available to make classification

#### Eye

Not considered to be a risk because of the extreme volatility of the gas. Eye contact with alkyl ethers (vapour or liquid) may produce irritation, redness and tears.

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.

#### Serious Eye Damage/Irritation

Data available to make classification

### **Respiratory Sensitisation**

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

### Skin Sensitisation

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

#### Carcinogenicity

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

### **Reproductive Toxicity**

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

### STOT - Single Exposure

Data available to make classification

### **STOT - Repeated Exposure**

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

#### **Aspiration Hazard**

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

#### Mutagenicity

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

### **Chronic Effects**

Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby. 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 thirst, fatigue, and weight loss.

Women exposed to xylene in the first 3 months of pregnancy showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to xylene has demonstrated lack of genetic toxicity.

Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]

### Section 12 - Ecological Information

### Ecotoxicity

Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula) Endpoint: Not Available Test Duration (hr): Not Available Species: Not Available Value: Not Available Source: Not Available

Xylene

Endpoint: EC50 Test Duration (hr): 72h Species: Algae or other aquatic plants Value: 4.6mg/l Source: 2 Endpoint: LC50 Test Duration (hr): 96h Species: Fish Value: 2.6mg/l Source: 2 Endpoint: EC50 Test Duration (hr): 48h Species: Crustacea Value: 1.8mg/l Source: 2 Endpoint: NOEC(ECx) Test Duration (hr): 73h Species: Algae or other aquatic plants Value: 0.44mg/l Source: 2 Acetone Endpoint: NOEC(ECx) Test Duration (hr): 48h Species: Fish Value: 0.001mg/L Source: 4 Endpoint: LC50

Test Duration (hr): 96h Species: Fish Value: >100mg/l Source: 4 Endpoint: EC50 Test Duration (hr): 48h Species: Crustacea Value: 6098.4mg/L Source: 5 Endpoint: EC50 Test Duration (hr): 96h Species: Algae or other aquatic plants Value: 9.873-27.684mg/l

Source: 4

Dimethyl ether Endpoint: EC50 Test Duration (hr): 48h Species: Crustacea Value: >4400mg/L Page 16/23

Source: 2 Endpoint: LC50 Test Duration (hr): 96h Species: Fish Value: 1783.04mg/l Source: 2 Endpoint: NOEC(ECx) Test Duration (hr): 48h Species: Crustacea Value: >4000mg/l Source: 1 Endpoint: EC50 Test Duration (hr): 96h Species: Algae or other aquatic plants Value: 154.917mg/l Source: 2 Hydrocarbon propellant Endpoint: EC50(ECx) Test Duration (hr): 96h Species: Algae or other aquatic plants Value: 7.71mg/l Source: 2 Endpoint: LC50 Test Duration (hr): 96h Species: Fish Value: 24.11mg/l Source: 2 Endpoint: EC50 Test Duration (hr): 96h Species: Algae or other aquatic plants Value: 7.71mg/l Source: 2 Endpoint: EC50(ECx) Test Duration (hr): 96h Species: Algae or other aquatic plants Value: 7.71mg/l Source: 2 Endpoint: LC50 Test Duration (hr): 96h Species: Fish Value: 24.11mg/l Source: 2 Endpoint: EC50 Test Duration (hr): 96h Species: Algae or other aquatic plants Value: 7.71mg/l Source: 2

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Harmful to aquatic organisms. DO NOT discharge into sewer or waterways.

### Persistence and degradability

Ingredient: xylene Persistence: Water/Soil: HIGH (Half-life = 360 days) Persistence: Air: LOW (Half-life = 1.83 days) Page 17/23

Ingredient: acetone Persistence: Water/Soil: LOW (Half-life = 14 days) Persistence: Air: MEDIUM (Half-life = 116.25 days)

Ingredient: dimethyl ether Persistence: Water/Soil: LOW Persistence: Air: LOW

#### Mobility

Mobility in soil: Ingredient: acetone Mobility: HIGH (KOC = 1.981)

Ingredient: dimethyl ether Mobility: HIGH (KOC = 1.292)

**Bioaccumulative Potential** Ingredient: xylene Bioaccumulation: MEDIUM (BCF = 740)

Ingredient: acetone Bioaccumulation: LOW (BCF = 0.69)

Ingredient: dimethyl ether Bioaccumulation: LOW (LogKOW = 0.1)

### Section 13 - Disposal Considerations

#### Waste Disposal

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.

### **Section 14 - Transport Information**

UN Number 1950 Proper Shipping Name AEROSOLS Transport Hazard Class 2.1 Hazchem Code Not Applicable EPG Number 2D1 IERG Number 49 IATA UN Number 1950

IATA Proper Shipping Name Aerosols, flammable

IATA Transport Hazard Class 2.1

IMDG UN Number 1950

IMDG Proper Shipping Name AEROSOLS

IMDG Transport Hazard Class 2.1

Additional Information Labels Required: Marine Pollutant: NO 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: 63 190 277 327 344 381 Limited quantity: 1000ml

Air transport (ICAO-IATA / DGR): UN number: 1950 UN proper shipping name: Aerosols, flammable 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: A145 A167 A802 Cargo Only Packing Instructions: 203 Cargo Only Maximum Qty / Pack: 150 kg Passenger and Cargo Packing Instructions: 203 Passenger and Cargo Maximum Qty / Pack: 75 kg Passenger and Cargo Limited Quantity Packing Instructions: Y203 Passenger and Cargo Limited Maximum Qty / Pack: 30 kg G

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 Number: F-D, S-U Special provisions: 63 190 277 327 344 381 959 Limited Quantities: 1000 ml

Transport in bulk according to Annex II of MARPOL and the IBC code: Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code: Product name: xylene Group: Not Available Product name: acetone Group: Not Available Product name: dimethyl ether Group: Not Available Product name: hydrocarbon propellant Group: Not Available

Transport in bulk in accordance with the ICG Code: Product name: xylene Ship Type: Not Available Product name: acetone Ship Type: Not Available Product name: dimethyl ether Ship Type: Not Available Product name: hydrocarbon propellant Ship Type: Not Available

### Section 15 - Regulatory Information

### **Regulatory Information**

Safety, health and environmental regulations / legislation specific for the substance or mixture: Xylene is found on the following regulatory lists: Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC) International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

Acetone is found on the following regulatory lists: Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 Australian Inventory of Industrial Chemicals (AIIC)

Dimethyl ether is found on the following regulatory lists: Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 Australian Inventory of Industrial Chemicals (AIIC)

Hydrocarbon propellant is found on the following regulatory lists: Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australian Inventory of Industrial Chemicals (AIIC) Chemical Footprint Project - Chemicals of High Concern List

National Inventory Status: National Inventory: Australia - AIIC / Australia Non-Industrial Use Status: Yes National Inventory: Canada - DSL Status: Yes National Inventory: Canada - NDSL Status: No (xylene; acetone; dimethyl ether; hydrocarbon propellant) National Inventory: China - IECSC Status: Yes National Inventory: Europe - EINEC / ELINCS / NLP Status: Yes Page 20 / 23

National Inventory: Japan - ENCS Status: Yes National Inventory: Korea - KECI Status: Yes National Inventory: New Zealand - NZIoC Status: Yes National Inventory: Philippines - PICCS Status: Yes National Inventory: USA - TSCA Status: Yes National Inventory: Taiwan - TCSI Status: Yes National Inventory: Mexico - INSQ Status: Yes National Inventory: Vietnam - NCI Status: Yes National Inventory: Russia - FBEPH Status: 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)

Poisons Schedule

N/A

### **Hazard Rating Systems**

Flammability: 4 Toxicity: 2 Body Contact: 2 Reactivity: 1 Chronic: 1

### 0 = Minimum

- 1 = Low
- 2 = Moderate
- 3 = High

4 = Extreme

### **Section 16 - Any Other Relevant Information**

Version Number 17.1.5.2

**Revisions Made** 

SDS Version Summary: Version: 16.1.1.1 Date of Update: 01/09/2020 Sections Updated: Classification Version: 16.1.2.1 Date of Update: 26/04/2021 Sections Updated: Regulation Change Version: 16.1.3.1 Date of Update: 03/05/2021 Sections Updated: Regulation Change Version: 16.1.4.1 Date of Update: 06/05/2021 Sections Updated: Regulation Change Version: 16.1.5.1 Date of Update: 10/05/2021

Sections Updated: Regulation Change Version: 16.1.5.2 Date of Update: 30/05/2021 Sections Updated: Template Change Version: 17.1.5.2 Date of Update: 02/06/2021 Sections Updated: Classification, Name

### Key Abbreviations or Acronyms Used

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 ES: Exposure Standard **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** AIIC: Australian Inventory of Industrial Chemicals **DSL: Domestic Substances List** NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances **NLP: No-Longer Polymers** ENCS: Existing and New Chemical Substances Inventory **KECI: Korea Existing Chemicals Inventory** NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

### **Empirical Formula & Structural Formula** Not Applicable

### User Codes

User Title Label	User Codes
Wis Numbers	00484245
Wis Numbers	00701267
Wis Numbers	00808146
Wis Numbers	01325701
Wis Numbers	04714558
Wis Numbers	04714655

### **Other Information**

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

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.

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