

Chemwatch Hazard Alert Code: 4

Chemwatch: 5456-52 Version No: 2.1.6.4

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

Issue Date: 17/03/2021 Print Date: 08/06/2021 L.GHS.AUS.EN.RISK

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

| Product name | Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow | |
|---|--|--|
| Chemical Name | ot Applicable | |
| Synonyms | 11522,11523,11524,11525, 11526, 11527, 11528, 11259 | |
| Proper shipping name | ROSOLS | |
| Chemical formula | Not Applicable | |
| Other means of identification Not Available | | |

Relevant identified uses of the substance or mixture and uses advised against

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

Details of the supplier of the safety data sheet

| Registered company name | Signet Pty Ltd | |
|-------------------------|--|--|
| Address | 6 Ingleston Road Wakerley QLD 4154 Australia | |
| Telephone | 3364 2100 | |
| Fax | +1 300 304 305 | |
| Website | www.signet.net.au | |
| Email | sales@signet.net.au | |

Emergency telephone number

| Association / Organisation | CHEMWATCH EMERGENCY RESPONSE | |
|--------------------------------------|------------------------------|--|
| Emergency telephone numbers | +61 2 9186 1132 | |
| Other emergency telephone numbers | +61 1800 951 288 | |

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

SECTION 2 Hazards identification

Classification of the substance or mixture

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

ChemWatch Hazard Ratings

Issue Date: 17/03/2021 Print Date: 08/06/2021



NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

| Poisons Schedule S5 | | |
|-------------------------------|---|--|
| Classification ^[1] | Aerosols Category 1, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Specific target organ toxicity - repeated exposure Category 2 *LIMITED EVIDENCE | |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI | |

Label elements









Signal word

Danger

Hazard statement(s)

| H222+H229 | Extremely flammable aerosol; Pressurized container: may burst if heated. | |
|-----------|--|--|
| H315 | Causes skin irritation. | |
| H319 | uses serious eye irritation. | |
| H336 | May cause drowsiness or dizziness. | |
| H373 | May cause damage to organs through prolonged or repeated exposure. | |
| AUH044 | Risk of explosion if heated under confinement. | |

^{*}LIMITED EVIDENCE

Supplementary statement(s)

Not Applicable

Precautionary statement(s) General

| P101 | If medical advice is needed, have product container or label at hand. | |
|------|---|--|
| P102 | Keep out of reach of children. | |
| P103 | Read carefully and follow all instructions. | |

Precautionary statement(s) 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. | |
| P260 | Do not breathe mist/vapours/spray. | |
| P271 | Use only a well-ventilated area. | |
| P280 | Wear protective gloves, protective clothing, eye protection and face protection. | |
| P264 | P264 Wash all exposed external body areas thoroughly after handling. | |

Precautionary statement(s) Response

| P305+P351+P338 | F 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 | eye irritation persists: Get medical advice/attention. | |
| P302+P352 | IF ON SKIN: Wash with plenty of water and soap. | |
| P304+P340 | P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. | |

Issue Date: **17/03/2021**Print Date: **08/06/2021**

| P332+P313 | If skin irritation occurs: Get medical advice/attention. | |
|--|--|--|
| P362+P364 Take off contaminated clothing and wash it before reuse. | | |

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 |
| 28262-63-7 | 10-30 | butyl methacrylate/ methyl methacrylate/ methacrylic acid |
| 141-78-6 | 10-20 | ethyl acetate |
| 123-86-4 | 1-10 | n-butyl acetate |
| 68476-85-7. | 10-30 | hydrocarbon propellant |
| 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

Description of first aid measures

| escription of mist aid m | edictiles |
|--------------------------|---|
| 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. If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. |

Indication of any immediate medical attention and special treatment needed

| I reat symptomatically. |
|-------------------------|
| for simple esters: |
| |
| BASIC TREATMENT |

Chemwatch: 5456-52 Page 4 of 18 Issue Date: 17/03/2021 Version No: 2.1.6.1 Print Date: 08/06/2021

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

- 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.
- Monitor and treat, where necessary, for pulmonary oedema.
- Monitor and treat, where necessary, for shock,
- 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.
- Give activated charcoal.

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 with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- 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.
- Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome.
- 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 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 Sampling Time Comments Methylhippu-ric acids in urine 1.5 gm/gm creatinine Fnd of shift Last 4 hrs of shift 2 ma/min

SECTION 5 Firefighting measures

Extinguishing media

- Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

SMALL FIRE:

Water spray, dry chemical or CO2

LARGE FIRE:

Water spray or fog.

Special hazards arising from the substrate or mixture

Fire Incompatibility

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

Advice for firefighters

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

Issue Date: **17/03/2021**Print Date: **08/06/2021**

| Fire Fighting | Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. 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. |
|-----------------------|--|
| 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. Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions. |
| HAZCHEM | Not Applicable |

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

| 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. 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. | | | | | |
|--------------|---|-----------------|-------------|-------------|-------------------|--|
| | Chemical Class: ester and ethers For release onto land: recommended | l sorb | ents listed | in order of | priority. | |
| | SORBENT TYPE RANK APPLICAT | ANK APPLICATION | | ECTION | LIMITATIONS | |
| | LAND SPILL - SMALL | | | | | |
| | cross-linked polymer - particulate | 1 | shovel | shovel | R, W, SS | |
| | cross-linked polymer - pillow | 1 | throw | pitchfork | R, DGC, RT | |
| | sorbent clay - particulate | 2 | shovel | shovel | R,I, P | |
| | wood fiber - particulate | 3 | shovel | shovel | R, W, P, DGC | |
| Major Spills | wood fiber - pillow | 3 | throw | pitchfork | R, P, DGC, RT | |
| | treated wood fiber - pillow | 3 | throw | pitchfork | DGC, RT | |
| | LAND SPILL - MEDIUM | | | | | |
| | cross-linked polymer - particulate | 1 | blower | skiploade | r R,W, SS | |
| | cross-linked polymer - pillow | 2 | throw | skiploade | r R, DGC, RT | |
| | sorbent clay - particulate | | blower | skiploade | r R, I, P | |
| | polypropylene - particulate | 3 | blower | skiploade | r W, SS, DGC | |
| | expanded mineral - particulate | 4 | blower | skiploade | r R, I, W, P, DGC | |

Chemwatch: 5456-52 Page 6 of 18 Issue Date: 17/03/2021
Version No: 2.1.6.1 Print Date: 08/06/2021

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

wood fiber - particulate 4 blower skiploader R, W, P, DGC

Legend

DGC: Not effective where ground cover is dense

R; Not reusable

I: Not incinerable

P: Effectiveness reduced when rainv

RT:Not effective where terrain is rugged

SS: Not for use within environmentally sensitive sites

W: Effectiveness reduced when windy

Reference: Sorbents for Liquid Hazardous Substance Cleanup and Control;

R.W Melvold et al: Pollution Technology Review No. 150: Noyes Data Corporation 1988

- 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.

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

SECTION 7 Handling and storage

Precautions for safe handling

The conductivity of this material may make it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid.

- ▶ DO NOT allow clothing wet with material to stay in contact with skin
- ▶ Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- ▶ Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- ▶ 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

Safe handling

- Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of
- 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

500g Aerosol Can.

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

Issue Date: **17/03/2021**Print Date: **08/06/2021**

Aerosol dispenser.

▶ Check that containers are clearly labelled.

For alkyl aromatics:

The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. The most common and dominant one is the attack by oxidation at benzylic carbon as the intermediate formed is stabilised by resonance structure of the ring.

- Following reaction with oxygen and under the influence of sunlight, a hydroperoxide at the alpha-position to the aromatic ring, is the primary oxidation product formed (provided a hydrogen atom is initially available at this position) this product is often short-lived but may be stable dependent on the nature of the aromatic substitution; a secondary C-H bond is more easily attacked than a primary C-H bond whilst a tertiary C-H bond is even more susceptible to attack by oxygen
- Monoalkylbenzenes may subsequently form monocarboxylic acids; alkyl naphthalenes mainly produce the corresponding naphthalene carboxylic acids.
- ▶ Oxidation in the presence of transition metal salts not only accelerates but also selectively decomposes the hydroperoxides.
- Hock-rearrangement by the influence of strong acids converts the hydroperoxides to hemiacetals. Peresters formed from the hydroperoxides undergo Criegee rearrangement easily.
- ▶ Alkali metals accelerate the oxidation while CO2 as co-oxidant enhances the selectivity.
- Microwave conditions give improved yields of the oxidation products.
- Photo-oxidation products may occur following reaction with hydroxyl radicals and NOx these may be components of photochemical smogs.

Oxidation of Alkylaromatics: T.S.S Rao and Shubhra Awasthi: E-Journal of Chemistry Vol 4, No. 1, pp 1-13 January 2007

Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances





Storage incompatibility













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 / 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 | ethyl acetate | Ethyl acetate | 200 ppm / 720 mg/m3 | 1440 mg/m3 / 400 ppm | Not Available | Not Available |
| Australia Exposure Standards | n-butyl acetate | n-Butyl acetate | 150 ppm / 713 mg/m3 | 950 mg/m3 / 200 ppm | Not Available | Not Available |
| Australia Exposure Standards | hydrocarbon propellant | LPG (liquified petroleum gas) | 1000 ppm / 1800 mg/m3 | Not Available | Not Available | Not Available |

Emergency Limits

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|------------------------|---------------|---------------|---------------|
| xylene | Not Available | Not Available | Not Available |
| ethyl acetate | 1,200 ppm | 1,700 ppm | 10000** ppm |
| n-butyl acetate | Not Available | Not Available | Not Available |
| hydrocarbon propellant | 65.000 ppm | 2.30E+05 ppm | 4.00E+05 ppm |

| Ingredient | Original IDLH | Revised IDLH |
|---|---------------|---------------|
| xylene | 900 ppm | Not Available |
| butyl methacrylate/ methyl methacrylate/ methacrylic acid | Not Available | Not Available |
| ethyl acetate | 2,000 ppm | Not Available |
| n-butyl acetate | 1,700 ppm | Not Available |

Page 8 of 18

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

Issue Date: 17/03/2021 Print Date: 08/06/2021

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

MATERIAL DATA

NOTE K: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0.1%w/w 1,3-butadiene (EINECS No 203-450-8). - European Union (EU) List of harmonised classification and labelling hazardous substances, Table 3.1, Annex VI, Regulation (EC) No 1272/2008 (CLP) - up to the latest ATP

Exposure 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.

Appropriate engineering controls

| Type of Contaminant: | Speed: |
|---|----------------------------|
| aerosols, (released at low velocity into zone of active generation) | 0.5-1 m/s |
| direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion) | 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 |

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.

Personal 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

Eye and face protection

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]

Skin protection

See Hand protection below

Hands/feet protection

- Do NOT use natural rubber, butyl rubber, EPDM or polystyrene-containing materials.
- ▶ No special equipment needed when handling small quantities.

► OTHERWISE:

For esters:

- For potentially moderate exposures:
- Wear general protective gloves, eg. light weight rubber gloves.
- ► For potentially heavy exposures:
- ▶ Wear chemical protective gloves, eg. PVC. and safety footwear.

Body protection

See Other protection below

Issue Date: 17/03/2021 Print Date: 08/06/2021

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- ► Skin cleansing cream.
- Eyewash unit.

Other protection

- 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 computer-generated selection:

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

| Material | СРІ |
|-------------------|-----|
| PE/EVAL/PE | A |
| PVA | A |
| TEFLON | В |
| 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 | С |
| PVC | С |
| PVDC/PE/PVDC | С |
| SARANEX-23 | С |
| SARANEX-23 2-PLY | С |
| VITON | С |
| VITON/BUTYL | С |
| VITON/CHLOROBUTYL | 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.

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

Aerosols, in common with most vapours/ mists, should never be used in confined spaces without adequate ventilation. Aerosols, containing agents designed to enhance or mask smell, have triggered allergic reactions in predisposed individuals.

SECTION 9 Physical and chemical properties

Page 10 of 18 Issue Date: 17/03/2021 Version No: 2.1.6.1 Print Date: 08/06/2021 Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

| Appearance | Aerosol with solvent odour. | | | |
|---|---|---|----------------|--|
| Physical state | Liquid | Relative density (Water = 1) | | |
| Odour | Not Available Partition coefficient n-octanol / water | | Not Available | |
| Odour threshold | Not Available | vailable Auto-ignition temperature (°C) | | |
| pH (as supplied) | Not Applicable | Decomposition temperature | Not Available | |
| Melting point / freezing point (°C) | Not Available Viscosity (cSt) No | | Not Available | |
| Initial boiling point and boiling range (°C) | Not Available | Molecular weight (g/mol) | Not Applicable | |
| Flash point (°C) | -81 (hydrocarbon 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) | | |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) Not Available | | |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available | |
| Solubility in water | Immiscible | pH as a solution (%) | 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

Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system. Inhalation hazard is increased at higher temperatures.

Central nervous system (CNS) depression may include nonspecific discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.

Inhaled

Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination The acute toxicity of inhaled alkylbenzenes is best described by central nervous system depression. As a rule, these compounds may also act as general anaesthetics.

Systemic poisoning produced by general anaesthesia is characterised by lightheadedness, nervousness, apprehension, euphoria, confusion, dizziness, drowsiness, tinnitus, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness and respiratory depression and arrest. Cardiac arrest may result from cardiovascular collapse. Bradycardia, and hypotension may also be produced.

Inhaled alkylbenzene vapours cause death in animals at air levels that are relatively similar (typically LC50s are in the range 5000 -8000 ppm for 4 to 8 hour exposures). It is likely that acute inhalation exposure to alkylbenzenes resembles that to general anaesthetics.

Chemwatch: 5456-52 Page 11 of 18 Issue Date: 17/03/2021
Version No: 2.1.6.1 Print Date: 08/06/2021

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

Alkylbenzenes are not generally toxic other than at high levels of exposure. This may be because their metabolites have a low order of toxicity and are easily excreted. There is little or no evidence to suggest that metabolic pathways can become saturated leading to spillover to alternate pathways. Nor is there evidence that toxic reactive intermediates, which may produce subsequent toxic or mutagenic effects, are formed

WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.

Headache, fatigue, lassitude, irritability and gastrointestinal disturbances (e.g., nausea, anorexia and flatulence) are the most common symptoms of xylene overexposure. Injury to the heart, liver, kidneys and nervous system has also been noted amongst workers. Transient memory loss, renal impairment, temporary confusion and some evidence of disturbance of liver function was reported in three workers overcome by gross exposure to xylene (10000 ppm). One worker died and autopsy revealed pulmonary congestion, oedema and focal alveolar haemorrhage. Volunteers inhaling xylene at 100 ppm for 5 to 6 hours showed changes in manual coordination reaction time and slight ataxia. Tolerance developed during the workweek but was lost over the weekend. Physical exercise may antagonise this effect. Xylene body burden in humans exposed to 100 or 200 ppm xylene in air depends on the amount of body fat with 4% to 8% of total absorbed xylene accumulating in adipose tissue.

Xylene is a central nervous system depressant. Central nervous system (CNS) depression may include nonspecific discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.

Ingestion

Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result.

Signs and symptoms of chemical (aspiration) pneumonitis may include coughing, gasping, choking, burning of the mouth, difficult breathing, and bluish coloured skin (cyanosis).

The material produces moderate skin irritation; evidence exists, or practical experience predicts, that the material either

- produces moderate inflammation of the skin in a substantial number of individuals following direct contact, and/or
- produces significant, but moderate, inflammation when applied to the healthy intact skin of animals (for up to four hours), such inflammation being present twenty-four hours or more after the end of the exposure period.

Skin Contact

Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.

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

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. Spray mist may produce discomfort

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

Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye

Evidence exists, or practical experience predicts, that the material may cause severe eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Eye contact may cause significant inflammation with pain. Corneal injury may occur; permanent impairment of vision may result unless treatment is prompt and adequate. Repeated or prolonged exposure to irritants may cause inflammation characterised by a temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

Direct contact with the eye may not cause irritation because of the extreme volatility of the gas; however concentrated atmospheres may produce irritation after brief exposures..

The liquid produces a high level of eye discomfort and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated.

Serious damage (clear functional disturbance or morphological change which may have toxicological significance) is likely to be caused by repeated or prolonged exposure. As a rule the material produces, or contains a substance which produces severe lesions. Such damage may become apparent following direct application in subchronic (90 day) toxicity studies or following sub-acute (28 day) or chronic (two-year) toxicity tests.

Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Principal route of occupational exposure to the gas is by inhalation.

Prolonged or repeated contact with xylenes may cause defatting dermatitis with drying and cracking. Chronic inhalation of xylenes has been associated with central nervous system effects, loss of appetite, nausea, ringing in the ears, irritability, thirst anaemia, mucosal bleeding, enlarged liver and hyperplasia. Exposure may produce kidney and liver damage. In chronic occupational exposure, xylene (usually mix ed with other solvents) has produced irreversible damage to the central nervous system and ototoxicity (damages hearing and increases sensitivity to noise), probably due to neurotoxic mechanisms. Industrial workers exposed to xylene with a maximum level of ethyl benzene of 0.06 mg/l (14 ppm) reported headaches and irritability and tired quickly. Functional nervous system disturbances were found in some workers employed for over 7 years whilst other workers had enlarged livers.

Chronic

Xylene has been classed as a developmental toxin in some jurisdictions.

Small excess risks of spontaneous abortion and congenital malformation were reported amongst women exposed to xylene in the first trimester of pregnancy. In all cases, however, the women were also been exposed to other substances. Evaluation of workers chronically exposed to xylene has demonstrated lack of genotoxicity. Exposure to xylene has been associated with increased risks of haemopoietic malignancies but, again, simultaneous exposure to other substances (including benzene) complicates the picture. A long-term gavage study to mixed xylenes (containing 17% ethyl benzene) found no evidence of carcinogenic activity in rats and mice of either sex.

Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]

Issue Date: 17/03/2021 Print Date: 08/06/2021

| Line Marking Paint Black, | TOXICITY | IRRITATION | | |
|--|---|---|--|--|
| Red, Blue, Green, Lemon, White, Orange, Grey, Yellow | Not Available | Not Available | | |
| | TOXICITY | IRRITATION | | |
| | Dermal (rabbit) LD50: >1700 mg/kg ^[2] | Eye (human): 200 ppm irritant | | |
| | Inhalation(Rat) LC50; 5922 ppm4h ^[1] | Eye (rabbit): 5 mg/24h SEVERE | | |
| xylene | Oral(Mouse) LD50; 1548 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] | | |
| outyl methacrylate/ methyl | TOXICITY | IRRITATION | | |
| methacrylate/ methacrylic acid | Not Available | Not Available | | |
| | TOXICITY | IRRITATION | | |
| | Dermal (rabbit) LD50: >18000 mg/kg ^[2] | Eye (human): 400 ppm | | |
| ethyl acetate | Inhalation(Mouse) LC50; >18 mg/l4h ^[1] | Eye: no adverse effect observed (not irritating) ^[1] | | |
| | Oral(Mouse) LD50; 709 mg/kg ^[2] | Skin: no adverse effect observed (not irritating) ^[1] | | |
| | TOXICITY | IRRITATION | | |
| | Dermal (rabbit) LD50: >14100 mg/kg ^[2] | Eye (human): 300 mg | | |
| | Inhalation(Rat) LC50; 0.74 mg/l4h ^[2] | Eye (rabbit): 20 mg (open)-SEVERE | | |
| n-butyl acetate | Oral(Rat) LD50; >3200 mg/kg ^[2] | Eye (rabbit): 20 mg/24h - moderate | | |
| | | Eye: no adverse effect observed (not irritating) ^[1] | | |
| | | Skin (rabbit): 500 mg/24h-moderate | | |
| | | Skin: no adverse effect observed (not irritating) ^[1] | | |
| hudroorkon nanallant | TOXICITY | IRRITATION | | |
| hydrocarbon propellant | Inhalation(Rat) LC50; 658 mg/l4h ^[2] Not Available | | | |
| Legend: | Value obtained from Europe ECHA Registered Sub- Unless otherwise specified data extracted from RTEG | ostances - Acute toxicity 2.* Value obtained from manufacturer's SDS. CS - Register of Toxic Effect of chemical Substances | | |
| | | | | |
| XYLENE | Reproductive effector in rats 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. | | | |

Evidence of carcinogenicity may be inadequate or limited in animal testing. Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial **ETHYL ACETATE** hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production. Generally, linear and branched-chain alkyl esters are hydrolysed to their component alcohols and carboxylic acids in the intestinal tract, blood and most tissues throughout the body. Following hydrolysis the component alcohols and carboxylic acids are metabolized Oral acute toxicity studies have been reported for 51 of the 67 esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids. The very low oral acute toxicity of this group of esters is demonstrated by oral LD50 values greater N-BUTYL ACETATE than 1850 mg/kg bw Genotoxicity studies have been performed in vitro using the following esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids: methyl acetate, butyl acetate, butyl stearate and the structurally related isoamyl formate and demonstrates that these substances are not genotoxic. The JEFCA Committee concluded that the substances in this group would not present safety concerns at the current levels of

intake the esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids are generally used as

Page 13 of 18 Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow Issue Date: 17/03/2021 Print Date: 08/06/2021

flavouring substances up to average maximum levels of 200 mg/kg. Higher levels of use (up to 3000 mg/kg) are permitted in food categories such as chewing gum and hard candy. In Europe the upper use, levels for these flavouring substances are generally 1 to 30 mg/kg foods and in special food categories like candy and alcoholic beverages up to 300 mg/kg foods

InternationI Program on Chemical Safety: the Joint FAO/WHO Expert Committee on Food Additives (JECFA) Esters of Aliphatic acyclic primary alcohols with aliphatic linear saturated carboxylic acids.; 1998

for Petroleum Hydrocarbon Gases:

In many cases, there is more than one potentially toxic constituent in a refinery gas. In those cases, the constituent that is most toxic for a particular endpoint in an individual refinery stream is used to characterize the endpoint hazard for that stream. The hazard potential for each mammalian endpoint for each of the petroleum hydrocarbon gases is dependent upon each petroleum hydrocarbon gas constituent endpoint toxicity values (LC50, LOAEL, etc.) and the relative concentration of the constituent present in that gas. It should also be noted that for an individual petroleum hydrocarbon gas, the constituent characterizing toxicity may be different for different mammalian endpoints, again, being dependent upon the concentration of the different constituents in each, distinct petroleum hydrocarbon gas.

All Hydrocarbon Gases Category members contain primarily hydrocarbons (i.e., alkanes and alkenes) and occasionally asphyxiant gases like hydrogen. The inorganic components of the petroleum hydrocarbon gases are less toxic than the C1 - C4 and C5 - C6 hydrocarbon components to both mammalian and aquatic organisms. Unlike other petroleum product categories (e.g. gasoline, diesel fuel, lubricating oils, etc.), the inorganic and hydrocarbon constituents of hydrocarbon gases can be evaluated for hazard individually to then predict the screening level hazard of the Category members

Acute toxicity: No acute toxicity LC50 values have been derived for the C1 -C4 and C5- C6 hydrocarbon (HC) fractions because no mortality was observed at the highest exposure levels tested (~ 5 mg/l) for these petroleum hydrocarbon gas constituents. The order of acute toxicity of petroleum hydrocarbon gas constituents from most to least toxic is:

C5-C6 HCs (LC50 > 1063 ppm) > C1-C4 HCs (LC50 > 10,000 ppm) > benzene (LC50 = 13,700 ppm) > butadiene (LC50 = 129,000 ppm) > asphyxiant gases (hydrogen, carbon dioxide, nitrogen).

Repeat dose toxicity: With the exception of the asphyxiant gases, repeated dose toxicity has been observed in individual selected petroleum hydrocarbon gas constituents. Based upon LOAEL values, the order of order of repeated-dose toxicity of these constituents from most toxic to the least toxic is:

Benzene (LOAEL .>=10 ppm) >C1-C4 HCs (LOAEL = 5.000 ppm; assumed to be 100% 2-butene) > C5-C6 HCs (LOAEL = 6.625 ppm) > butadiene (LOAEL = 8,000 ppm) > asphyxiant gases (hydrogen, carbon dioxide, nitrogen).

Genotoxicity:

In vitro: The majority of the Petroleum Hydrocarbon Gases Category components are negative for in vitro genotoxicity. The exceptions are: benzene and 1,3-butadiene, which are genotoxic in bacterial and mammalian in vitro test systems. In vivo: The majority of the Petroleum Hydrocarbon Gases Category components are negative for in vivo genotoxicity. The exceptions are benzene and 1,3-butadiene, which are genotoxic in in vivo test systems

Developmental toxicity: Developmental effects were induced by two of the petroleum hydrocarbon gas constituents, benzene and the C5 -C6 hydrocarbon fraction. No developmental toxicity was observed at the highest exposure levels tested for the other petroleum hydrocarbon gas constituents tested for this effect. The asphyxiant gases have not been tested for developmental toxicity. Based on LOAEL and NOAEL values, the order of acute toxicity of these constituents from most to least toxic is: Benzene (LOAEL = 20 ppm) > butadiene (NOAEL .>=1,000 ppm) > C5-C6 HCs (LOAEL = 3,463 ppm) > C1-C4 HCs (NOAEL >=5,000 ppm; assumed to be 100% 2-butene) > asphyxiant gases (hydrogen, carbon dioxide, nitrogen).

Reproductive toxicity: Reproductive effects were induced by only two petroleum hydrocarbon gas constituents, benzene and isobutane (a constituent of the the C1-C4 hydrocarbon fraction). No reproductive toxicity was observed at the highest exposure levels tested for the other petroleum hydrocarbon gas constituents tested for this effect. The asphyxiant gases have not been tested for reproductive toxicity. Based on LOAEL and NOAEL values, the order of reproductive toxicity of these constituents from most to least toxic is:

Benzene (LOAEL = 300 ppm) > butadiene (NOAEL .>=6,000 ppm) > C5-C6 HCs (NOAEL .>=6,521 ppm) > C1-C4 HCs (LOAEL = 9,000 ppm; assumed to be 100% isobutane) > asphyxiant gases (hydrogen, carbon dioxide, nitrogen)

XYLENE & N-BUTYL ACETATE

HYDROCARBON

PROPELLANT

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

BUTYL METHACRYLATE/ METHYL METHACRYLATE/ **METHACRYLIC ACID & HYDROCARBON PROPELLANT**

No significant acute toxicological data identified in literature search.

| Acute Toxicity | × | Carcinogenicity | × |
|-----------------------------------|----------|--------------------------|----------|
| Skin Irritation/Corrosion | ✓ | Reproductivity | × |
| Serious Eye Damage/Irritation | ✓ | STOT - Single Exposure | ✓ |
| Respiratory or Skin sensitisation | × | STOT - Repeated Exposure | ✓ |
| Mutagenicity | × | Aspiration Hazard | × |

Legend:

★ - Data either not available or does not fill the criteria for classification.

Data available to make classification

Issue Date: 17/03/2021 Print Date: 08/06/2021

SECTION 12 Ecological information

Toxicity

| Line Marking Paint Black, Red, Blue, Green, Lemon, | Endpoint | Test Duration (hr) | Species | Value | Source |
|---|------------------|-------------------------------------|--|---------------------|------------------|
| White, Orange, Grey, Yellow | Not Available | Not Available | Not Available | Not Available | Not Available |
| | Endpoint | Test Duration (hr) | Species | Value | Source |
| | EC50 | 72h | Algae or other aquatic plants | 4.6mg/l | 2 |
| xylene | LC50 | 96h | Fish | 2.6mg/l | 2 |
| | EC50 | 48h | Crustacea | 1.8mg/l | 2 |
| | NOEC(ECx) | 73h | Algae or other aquatic plants | 0.44mg/l | 2 |
| butyl methacrylate/ methyl | Endpoint | Test Duration (hr) | Species | Value | Source |
| methacrylate/ methacrylic acid | Not Available | Not Available | Not Available | Not Available | Not Available |
| | Endpoint | Test Duration (hr) | Species | Value | Sourc |
| | LC50 | 96h | Fish | >75.6mg/l | 2 |
| ethyl acetate | EC50 | 48h | Crustacea | 164mg/l | 1 |
| | NOEC(ECx) | 72h | Algae or other aquatic plants | >100mg/l | 1 |
| | Endpoint | Test Duration (hr) | Species | Value | |
| | EC50(ECx) | 96h | Fish | 18mg/l | 2 |
| n-butyl acetate | EC50 | 72h | Algae or other aquatic plants | 246mg/l | 2 |
| | LC50 | 96h | Fish | 18mg/l | 2 |
| | EC50 | 48h | Crustacea | 32mg/l | 1 |
| | Endpoint | Test Duration (hr) | Species | Value | Source |
| | EC50(ECx) | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| | LC50 | 96h | Fish | 24.11mg/l | 2 |
| hydrocarbon propellant | EC50 | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| | EC50(ECx) | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| | LC50 | 96h | Fish | 24.11mg/l | 2 |
| | EC50 | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| Legend: | 3. EPIWIN Su | ite V3.12 (QSAR) - Aquatic Toxicity | e ECHA Registered Substances - Ecotoxicologica / Data (Estimated) 4. US EPA, Ecotox database - ITE (Japan) - Bioconcentration Data 7. METI (Ja | Aquatic Toxicity Da | ata 5. |

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) | |
| ethyl acetate | LOW (Half-life = 14 days) | LOW (Half-life = 14.71 days) | |
| n-butyl acetate | LOW | LOW | |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|-----------------|--------------------|
| xylene | MEDIUM (BCF = 740) |
| ethyl acetate | HIGH (BCF = 3300) |
| n-butyl acetate | LOW (BCF = 14) |

Mobility in soil

Issue Date: **17/03/2021**Print Date: **08/06/2021**

| Ingredient | Mobility |
|-----------------|-------------------|
| ethyl acetate | LOW (KOC = 6.131) |
| n-butyl acetate | LOW (KOC = 20.86) |

SECTION 13 Disposal considerations

Waste treatment methods

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- ▶ Reduction
- ► Reuse
- Recycling
- ► Disposal (if all else fails)

Product / Packaging disposal

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

- 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

Labels Required



Marine Pollutant

NO

HAZCHEM

Not Applicable

Land transport (ADG)

| . , , , | | | | | |
|------------------------------|----------------------------------|----------|--|--|--|
| UN number | 1950 | 1950 | | | |
| UN proper shipping name | AEROSOLS | AEROSOLS | | | |
| Transport hazard class(es) | Class 2.1 Subrisk Not Applicable | | | | |
| Packing group | Not Applicable | | | | |
| Environmental hazard | Not Applicable | | | | |
| Special precautions for user | Special provis | | | | |

Air transport (ICAO-IATA / DGR)

| UN number | 1950 | | |
|----------------------------|---------------------|----------------|--|
| UN proper shipping name | Aerosols, flammable | | |
| | ICAO/IATA Class | 2.1 | |
| Transport hazard class(es) | ICAO / IATA Subrisk | Not Applicable | |
| | ERG Code | 10L | |

Page **16** of **18**

Chemwatch: **5456-52**Version No: **2.1.6.1**

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

Issue Date: **17/03/2021**Print Date: **08/06/2021**

| Packing group | Not Applicable | | | |
|------------------------------|---|----------------|--|--|
| Environmental hazard | Not Applicable | | | |
| | Special provisions | A145 A167 A802 | | |
| | Cargo Only Packing Instructions | 203 | | |
| | Cargo Only Maximum Qty / Pack | 150 kg | | |
| Special precautions for user | Passenger and Cargo Packing Instructions | 203 | | |
| usei | 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 | AEROSOLS | | |
| Transport hazard class(es) | | 2.1 Not Applicable | | |
| Packing group | Not Applicable | | | |
| Environmental hazard | Not Applicable | | | |
| Special precautions for user | EMS Number Special provisions Limited Quantities | F-D , S-U 63 190 277 327 344 381 959 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 | Group |
|---|---------------|
| xylene | Not Available |
| butyl methacrylate/ methyl methacrylate/ methacrylic acid | Not Available |
| ethyl acetate | Not Available |
| n-butyl acetate | Not Available |
| hydrocarbon propellant | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name | Ship Type |
|---|---------------|
| xylene | Not Available |
| butyl methacrylate/ methyl methacrylate/ methacrylic acid | Not Available |
| ethyl acetate | Not Available |
| n-butyl acetate | Not Available |
| hydrocarbon propellant | Not Available |

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

xylene is found on the following regulatory lists

Version No: **2.1.6.1**

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

Issue Date: **17/03/2021**Print Date: **08/06/2021**

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

butyl methacrylate/ methyl methacrylate/ methacrylic acid is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

ethyl acetate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

n-butyl acetate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

hydrocarbon propellant is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Chemical Footprint Project - Chemicals of High Concern List

Australian Inventory of Industrial Chemicals (AIIC)

National Inventory Status

| National Inventory | Status | |
|--|---|--|
| Australia - AIIC / Australia Non-Industrial Use | Yes | |
| Canada - DSL | Yes | |
| Canada - NDSL | No (xylene; butyl methacrylate/ methyl methacrylate/ methacrylic acid; ethyl acetate; n-butyl acetate; hydrocarbon propellant) | |
| China - IECSC | Yes | |
| Europe - EINEC / ELINCS / NLP | No (butyl methacrylate/ methacrylate/ methacrylic acid) | |
| Japan - ENCS | Yes | |
| Korea - KECI | Yes | |
| New Zealand - NZIoC | Yes | |
| Philippines - PICCS | Yes | |
| USA - TSCA | Yes | |
| Taiwan - TCSI | Yes | |
| Mexico - INSQ | No (butyl methacrylate/ methyl methacrylate/ methacrylic acid) | |
| Vietnam - NCI | Yes | |
| Russia - FBEPH | No (butyl methacrylate/ methyl methacrylate/ methacrylic acid) | |
| 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 | 17/03/2021 |
|---------------|------------|
| Initial Date | 17/03/2021 |

SDS Version Summary

| Version | Date of Update | Sections Updated |
|---------|----------------|-------------------|
| 0.0.2.1 | 26/04/2021 | Regulation Change |
| 0.0.3.1 | 03/05/2021 | Regulation Change |
| 0.0.4.1 | 06/05/2021 | Regulation Change |
| 0.0.5.1 | 10/05/2021 | Regulation Change |
| 0.0.5.2 | 30/05/2021 | Template Change |
| 0.0.5.3 | 04/06/2021 | Template Change |

Chemwatch: **5456-52** Page **18** of **18**

Version No: 2.1.6.1

Line Marking Paint Black, Red, Blue, Green, Lemon, White, Orange, Grey, Yellow

Issue Date: **17/03/2021**Print Date: **08/06/2021**

| Version | Date of Update | Sections Updated |
|---------|----------------|-------------------|
| 0.0.5.4 | 05/06/2021 | Template Change |
| 0.0.6.4 | 07/06/2021 | Regulation Change |

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

 $\label{eq:pc-twa} \mbox{Pc-TWA: Permissible Concentration-Time Weighted Average} \\ \mbox{PC-STEL: Permissible Concentration-Short Term Exposure Limit}$

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

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.

TEL (+61 3) 9572 4700.