

## JJETT

Chemwatch: **4749-67** Version No: **2.1.1.1** Safety Data Sheet according to WHS and ADG requirements hemwatch Hazard Alert Code: 3

Issue Date: 01/01/2013 Print Date: 02/02/2015 Initial Date: Not Available L.GHS.AUS.EN

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

## **Product Identifier**

| Product name                     | Stencil Spray 450, All Colours, 400g Aerosol |
|----------------------------------|--|
| Chemical Name                    | Not Applicable                               |
| Synonyms                         | Not Available                                |
| Proper shipping name             | AEROSOLS                                     |
| Chemical formula                 | Not Applicable                               |
| Other means of<br>identification | Not Available                                |
| CAS number                       | Not Applicable                               |

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

| Relevant identified | Application is by spray atomisation from a hand held aerosol pack |
|---------------------|---|
|                     | Use according to manufacturer's directions.                       |
| uses                | Fast drying spray marker for industrial use.                      |

#### Details of the manufacturer/importer

| Registered company name | JJETT  |
|-------------------------|--|
| Address                 | 84 Camp Road Broadmeadows 3047 VIC Australia |
| Telephone               | +61 3 9457 1125                              |
| Fax                     | +61 3 9459 7978                              |
| Website                 | Not Available                                |
| Email                   | sales@aerosolve.com.au                       |

#### **Emergency telephone number**

| Association /<br>Organisation     | Not Available |
|-----------------------------------|---------------|
| Emergency telephone<br>numbers    | Not Available |
| Other emergency telephone numbers | Not Available |

## SECTION 2 HAZARDS IDENTIFICATION

## Classification of the substance or mixture

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

## CHEMWATCH HAZARD RATINGS

|              |   | Min | Max |                          |
|--------------|---|-----|-----|--------------------------|
| Flammability | 3 |     |     |                          |
| Toxicity     | 2 |     |     | 0 = Minimum              |
| Body Contact | 2 |     |     | 1 = Low                  |
| Reactivity   | 1 |     |     | 2 = Moderate<br>3 = High |
| Chronic      | 2 |     |     | 4 = Extreme              |

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## Stencil Spray 450, All Colours, 400g Aerosol

| GHS Classification <sup>[1]</sup> | Flammable Aerosol Category 1, Eye Irritation Category 2, STOT - SE (Narcosis) Category 3                                       |  |  |
|-----------------------------------|--|--|--|
| Legend:                           | 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI |  |  |
| Label elements                    |  |  |  |
| GHS label elements                |  |  |  |
| SIGNAL WORD                       | DANGER   |  |  |
| Hazard statement(s)               |  |  |  |
| H222                              | Extremely flammable aerosol  |  |  |

| H222   | Extremely flammable aerosol                          |  |
|--|--|--|
| H319   | H319 Causes serious eye irritation                   |  |
| H336   | May cause drowsiness or dizziness                    |  |
| AUH044   | AUH044 Risk of explosion if heated under confinement |  |
| AUH066 Repeated exposure may cause skin dryness and cracking |  |  |

## 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 | o not pierce or burn, even after use.  |  |
| P271 | Use only outdoors or in a well-ventilated area.  |  |
| P261 | 261 Avoid breathing dust/fume/gas/mist/vapours/spray.  |  |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection.                     |  |

## Precautionary statement(s) 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.  |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |

## 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 chemical landfill or if organic to high temperature incineration

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

## Substances

See section below for composition of Mixtures

## Mixtures

| CAS No        | %[weight] | Name                   |
|---------------|-----------|------------------------|
| 67-64-1       | 30-60     | acetone                |
| Not Available | NotSpec.  | pigment                |
| Not Available | NotSpec.  | additives              |
| 68476-85-7.   | NotSpec.  | hydrocarbon propellant |

## SECTION 4 FIRST AID MEASURES

## Description of first aid measures

| Eye Contact  | <ul> <li>If aerosols come in contact with the eyes:</li> <li>Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.</li> <li>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.</li> <li>Transport to hospital or doctor without delay.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>   |
|--------------|---|
| Skin Contact | <ul> <li>If solids or aerosol mists are deposited upon the skin:</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Remove any adhering solids with industrial skin cleansing cream.</li> <li>DO NOT use solvents.</li> <li>Seek medical attention in the event of irritation.</li> </ul>  |
| Inhalation   | <ul> <li>If aerosols, fumes or combustion products are inhaled:</li> <li>Remove to fresh air.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>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.</li> <li>Transport to hospital, or doctor.</li> </ul> |
| Ingestion    | <ul> <li>Not considered a normal route of entry.</li> <li>If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.</li> </ul>  |

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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 sp | ecimens collected from a healthy worker expo | sed at the Exposure Stan | dard (ES or TLV) |
|---|--|--------------------------|------------------|
| Determinant                                     | Sampling Time                                | Index                    | Comments         |
| Acetone in urine                                | End of shift                                 | 50 mg/L                  | NS               |

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

#### SECTION 5 FIREFIGHTING MEASURES

#### Extinguishing media

LARGE FIRE: Water spray or fog.

| Fire Incompatibility   | Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition ma<br>result   |
|------------------------|--|
| lvice for firefighters | S  |
| Fire Fighting          | <ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>May be violently or explosively reactive.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>DO NOT approach containers suspected to be hot.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> <li>If safe to do so, remove containers from path of fire.</li> <li>Equipment should be thoroughly decontaminated after use.</li> </ul>  |
| Fire/Explosion Hazard  | <ul> <li>Liquid and vapour are highly flammable.</li> <li>Severe fire hazard when exposed to heat or flame.</li> <li>Vapour forms an explosive mixture with air.</li> <li>Severe explosion hazard, in the form of vapour, when exposed to flame or spark.</li> <li>Vapour may travel a considerable distance to source of ignition.</li> <li>Heating may cause expansion or decomposition with violent container rupture.</li> <li>Aerosol cans may explode on exposure to naked flames.</li> <li>Rupturing containers may rocket and scatter burning materials.</li> <li>Hazards may not be restricted to pressure effects.</li> <li>May emit acrid, poisonous or corrosive fumes.</li> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>Combustion products include:, carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material <b>Contains low boiling substance:</b> Closed containers may rupture due to pressure buildup under fire conditions.</li> </ul> |

## Personal precautions, protective equipment and emergency procedures

| Minor Spills | <ul> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Wear protective clothing, impervious gloves and safety glasses.</li> <li>Shut off all possible sources of ignition and increase ventilation.</li> <li>Wipe up.</li> <li>If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.</li> <li>Undamaged cans should be gathered and stowed safely.</li> </ul>  |
|--------------|--|
| Major Spills | <ul> <li>DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve.</li> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>May be violently or explosively reactive.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses</li> <li>No smoking, naked lights or ignition sources.</li> <li>Increase ventilation.</li> <li>Stop leak if safe to do so.</li> <li>Water spray or fog may be used to disperse / absorb vapour.</li> <li>Absorb or cover spill with sand, earth, inert materials or vermiculite.</li> <li>If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.</li> <li>Undamaged cans should be gathered and stowed safely.</li> <li>Collect residues and seal in labelled drums for disposal.</li> <li>Remove leaking cylinders to a safe place if possible.</li> <li>Release pressure under safe, controlled conditions by opening the valve.</li> </ul> |
|              | Personal Protective Equipment advice is contained in Section 8 of the MSDS.  |

## SECTION 7 HANDLING AND STORAGE

| Safe handling     | <ul> <li>DO NOT allow clothing wet with material to stay in contact with skin</li> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> <li>DO NOT enter confined spaces until atmosphere has been checked.</li> <li>Avoid smoking, naked lights or ignition sources.</li> <li>Avoid contact with incompatible materials.</li> <li>When handling, DO NOT eat, drink or smoke.</li> <li>DO NOT incinerate or puncture aerosol cans.</li> <li>DO NOT spray directly on humans, exposed food or food utensils.</li> <li>Avoid physical damage to containers.</li> <li>Always wash hands with soap and water after handling.</li> <li>Work clothes should be laundered separately.</li> <li>Use good occupational work practice.</li> <li>Observe manufacturer's storage and handling recommendations contained within this MSDS.</li> <li>Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul> |
|-------------------|--|
| Other information | <ul> <li>Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject conten of can</li> <li>Store in original containers in approved flammable liquid storage area.</li> <li>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</li> <li>No smoking, naked lights, heat or ignition sources.</li> <li>Keep containers securely sealed. Contents under pressure.</li> <li>Store in a cool, dry, well ventilated area.</li> <li>Avoid storage at temperatures higher than 40 deg C.</li> <li>Store in an upright position.</li> <li>Protect containers against physical damage.</li> <li>Check regularly for spills and leaks.</li> <li>Observe manufacturer's storage and handling recommendations contained within this MSDS.</li> </ul>   |

## Conditions for safe storage, including any incompatibilities

| Suitable container         | <ul> <li>Aerosol dispenser.</li> <li>Check that containers are clearly labelled.</li> </ul> |
|----------------------------|---|
| Storage<br>incompatibility | Avoid reaction with oxidising agents  |

## PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## **Control parameters**

## OCCUPATIONAL EXPOSURE LIMITS (OEL)

## INGREDIENT DATA

| Source                          | Ingredient                | Material name                 | TWA                      | STEL                     | Peak             | Notes            |
|---------------------------------|---------------------------|-------------------------------|--------------------------|--------------------------|------------------|------------------|
| Australia Exposure<br>Standards | acetone                   | Acetone                       | 1185 mg/m3 / 500<br>ppm  | 2375 mg/m3 / 1000<br>ppm | Not<br>Available | Not<br>Available |
| Australia Exposure<br>Standards | hydrocarbon<br>propellant | LPG (liquified petroleum gas) | 1800 mg/m3 / 1000<br>ppm | Not Available            | Not<br>Available | Not<br>Available |

## EMERGENCY LIMITS

| Ingredient             | Material name                     | TEEL-1                                 |                 | TEEL-2          | TEEL-3        |  |
|------------------------|-----------------------------------|--|-----------------|-----------------|---------------|--|
| acetone                | Acetone                           | Not Available                          |                 | Not Available   | Not Available |  |
| hydrocarbon propellant | Liquified petroleum gas; (L.P.G.) | fied petroleum gas; (L.P.G.) 3,000 ppm |                 | 3200 ppm        | 19000 ppm     |  |
|                        |                                   |  |                 |                 |               |  |
| Ingredient             | Original IDLH                     |  | Revised IDLH    |                 |               |  |
| acetone                | 20,000 ppm                        |  | 2,500 [LE       | 2,500 [LEL] ppm |               |  |
| pigment                | Not Available                     |  | Not Available   |                 |               |  |
| additives              | Not Available                     |  | Not Available   |                 |               |  |
| hydrocarbon propellant | 19,000 [LEL] ppm                  |  | 2,000 [LEL] ppm |                 |               |  |

#### Issue Date: 01/01/2013 Print Date: 02/02/2015

## Stencil Spray 450, All Colours, 400g Aerosol

#### MATERIAL DATA

For liquefied petroleum gases (LPG): TLV TWA: 1000 ppm, 1800 mg/m3 (as LPG) ES TWA: 1000 ppm, 1800 mg/m3 (as LPG) OES TWA: 1000 ppm, 1750 mg/m3; STEL: 1250 ppm, 2180 mg/m3 (as LPG) IDLH Level: 2000 ppm (lower explosive limit) No chronic systemic effects have been reported from occupational exposure to LPG. The TLV-TWA is based on good hygiene practices and is thought to minimise the risk of fire or explosion. Odour Safety Factor(OSF) OSF=0.16 (hydrocarbon propellant) Odour Threshold Value: 3.6 ppm (detection), 699 ppm (recognition) Saturation vapour concentration: 237000 ppm @ 20 C NOTE: Detector tubes measuring in excess of 40 ppm, are available. Exposure at or below the recommended TLV-TWA is thought to protect the worker against mild irritation associated with brief exposures and the bioaccumulation, chronic irritation of the respiratory tract and headaches associated with long-term acetone exposures. The NIOSH REL-TWA is with the term of the respiratory tract and headaches associated with long-term acetone exposures. The NIOSH REL-TWA is

substantially lower and has taken into account slight irritation experienced by volunteer subjects at 300 ppm. Mild irritation to acclimatised workers begins at about 750 ppm - unacclimatised subjects will experience irritation at about 350-500 ppm but acclimatisation can occur rapidly. Disagreement between the peak bodies is based largely on the view by ACGIH that widespread use of acetone, without evidence of significant adverse health effects at higher concentrations, allows acceptance of a higher limit.

Half-life of acetone in blood is 3 hours which means that no adjustment for shift-length has to be made with reference to the standard 8 hour/day, 40 hours per week because body clearance occurs within any shift with low potential for accumulation.

A STEL has been established to prevent excursions of acetone vapours that could cause depression of the central nervous system. Odour Safety Factor(OSF)

OSF=38 (ACETONE)

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 Dangerous Substances (Annex VI).

#### **Exposure controls**

|                      | Engineering controls are used to remove a hazard or place a barrier betwee<br>engineering controls can be highly effective in protecting workers and will<br>provide this high level of protection.<br>The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process<br>Enclosure and/or isolation of emission source which keeps a selected ha<br>ventilation that strategically "adds" and "removes" air in the work environ<br>contaminant if designed properly. The design of a ventilation system musi-<br>contaminant in use.<br>Employers may need to use multiple types of controls to prevent employer | I typically be independent<br>is is done to reduce the ris<br>zard "physically" away from<br>ment. Ventilation can remo<br>st match the particular pro- | of worker interactions to<br>k.<br>n the worker and<br>ive or dilute an air                                   |  |
|----------------------|---|---|---|--|
|                      | General exhaust is adequate under normal conditions. If risk of overexpo  | sure exists, wear SAA app   | roved respirator. Correct   |  |
|                      | fit is essential to obtain adequate protection.   |   |   |  |
|                      | Provide adequate ventilation in warehouse or closed storage areas.  | alaaitiaa which in turn dat   | orming the "conturn   |  |
|                      | Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "ca<br>velocities" of fresh circulating air required to effectively remove the contaminant.   |   |   |  |
|                      | Type of Contaminant:  |   | Speed:  |  |
| Appropriate          | aerosols, (released at low velocity into zone of active generation)   |   | 0.5-1 m/s   |  |
| engineering controls | 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  | of high toxicity  |  |
|                      | 3: Intermittent, low production.  | 3: High production  | n, 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 generally decreases with the square of distance from the extraction point extraction point should be adjusted, accordingly, after reference to distant at the extraction fan, for example, should be a minimum of 1-2 m/s (200 tank 2 meters distant from the extraction point. Other mechanical considerextraction apparatus, make it essential that theoretical air velocities are systems are installed or used.   | t (in simple cases). Therefore<br>the from the contaminating<br>-400 f/min.) for extraction<br>erations, producing perform                              | ore the air speed at the<br>source. The air velocity<br>of solvents generated in<br>nance deficits within the |  |

| Personal protection        |   |
|----------------------------|---|
| Eye and face<br>protection | <ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles.</li> <li>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]</li> </ul> |
| Skin protection            | See Hand protection below   |
| Hands/feet protection      | <ul> <li>No special equipment needed when handling small quantities.</li> <li>OTHERWISE:</li> <li>For potentially moderate exposures:</li> <li>Wear general protective gloves, eg. light weight rubber gloves.</li> <li>For potentially heavy exposures:</li> <li>Wear chemical protective gloves, eg. PVC. and safety footwear.</li> </ul>   |
| Body protection            | See Other protection below  |
| Other protection           | <ul> <li>No special equipment needed when handling small quantities.</li> <li>OTHERWISE: <ul> <li>Overalls.</li> <li>Skin cleansing cream.</li> <li>Eyewash unit.</li> <li>Do not spray on hot surfaces.</li> <li>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.</li> <li>Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.</li> </ul> </li> <li>BRETHERICK: Handbook of Reactive Chemical Hazards.</li> </ul>  |
| Thermal hazards            | Not Available   |

## Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

Stencil Spray 450, All Colours, 400g Aerosol

| laterial        | CPI |
|-----------------|-----|
| UTYL            | A   |
| UTYL/NEOPRENE   | A   |
| E/EVAL/PE       | А   |
| VDC/PE/PVDC     | A   |
| ARANEX-23 2-PLY | В   |
| FLON            | В   |
| PE              | С   |
| PALON           | С   |
| TURAL RUBBER    | С   |
| TURAL+NEOPRENE  | С   |
| OPRENE          | С   |
| <b>TRILE</b>    | С   |
| TRILE+PVC       | С   |
| A               | С   |
| С               | С   |
| RANEX-23        | С   |
| TON/NEOPRENE    | С   |

#### **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<br>Minimum<br>Protection Factor | Half-Face<br>Respirator | Full-Face<br>Respirator | Powered Air<br>Respirator |
|--|-------------------------|-------------------------|---------------------------|
| up to 5 x ES                             | Air-line*               | AX-2                    | AX-PAPR-2 ^               |
| up to 10 x ES                            | -                       | AX-3                    | -                         |
| 10+ x ES                                 | -                       | Air-line**              | -                         |

 $^{\ast}$  - Continuous Flow;  $^{\ast\ast}$  - Continuous-flow or positive pressure demand ^ - Full-face

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

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion C: Poor to Dangerous Choice for other than short term immersion **NOTE**: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

Appearance Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant.

| Physical state                                  | Liquid            | Relative density<br>(Water = 1)            | 0.85           |
|---|-------------------|--|----------------|
| Odour   | Not Available     | Partition coefficient<br>n-octanol / water | Not Available  |
| Odour threshold                                 | Not Available     | Auto-ignition<br>temperature (°C)          | Not Available  |
| pH (as supplied)                                | Not Applicable    | Decomposition<br>temperature               | Not Available  |
| Melting point /<br>freezing point (°C)          | Not Available     | Viscosity (cSt)                            | Not Available  |
| Initial boiling point<br>and boiling range (°C) | Not Available     | Molecular weight<br>(g/mol)                | Not Applicable |
| Flash point (°C)                                | -30               | Taste                                      | Not Available  |
| Evaporation rate                                | Not Available     | Explosive properties                       | Not Available  |
| Flammability                                    | HIGHLY FLAMMABLE. | Oxidising properties                       | Not Available  |
| Upper Explosive Limit<br>(%)                    | 7.5               | Surface Tension<br>(dyn/cm or mN/m)        | Not Available  |
| Lower Explosive Limit<br>(%)                    | 1.2               | Volatile Component<br>(%vol)               | 90 approx      |
| Vapour pressure (kPa)                           | 379               | Gas group                                  | Not Available  |
| Solubility in water<br>(g/L)                    | Immiscible        | pH as a solution(1%)                       | Not Applicable |
| Vapour density (Air =<br>1)                     | >1                | VOC g/L                                    | Not Available  |

## SECTION 10 STABILITY AND REACTIVITY

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

## SECTION 11 TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

Inhaled

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss

Continued...

|              | of reflexes, lack of coordination and vertigo.  |
|--------------|---|
|              | Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.   |
|              | 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.   |
|              | <ul> <li>Common, generalised symptoms associated with toxic gas inhalation include:</li> <li>central nervous system effects such as depression, headache, confusion, dizziness, progressive stupor, coma and seizures;</li> <li>respiratory system complications may include acute pulmonary oedema, dyspnoea, stridor, tachypnoea, bronchospasm, wheezing and other reactive airway symptoms, and respiratory arrest;</li> </ul>   |
|              | <ul> <li>cardiovascular effects may include cardiovascular collapse, arrhythmias and cardiac arrest;</li> <li>gastrointestinal effects may also be present and may include mucous membrane irritation, nausea and vomiting (sometimes bloody), and abdominal pain.</li> </ul>   |
|              | 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.  |
|              | Symptoms of asphyxia (suffocation) may include headache, dizziness, shortness of breath, muscular weakness, drowsiness and ringing in the ears. If the asphyxia is allowed to progress, there may be nausea and vomiting, further physical weakness and unconsciousness and, finally, convulsions, coma and death. Significant concentrations of the non-toxic gas reduce the oxygen level in the air. As the amount of oxygen is reduced from 21 to 14 volume %, the pulse rate accelerates and the rate and volume of breathing increase. The ability to maintain attention and think clearly is diminished and muscular coordination is somewhat disturbed. As oxygen decreases from 14-10% judgement becomes faulty; severe injuries may cause no pain. Muscular exertion leads to rapid fatigue. Further reduction to 6% may produce nausea and vomiting and the ability to move may be lost. Permanent brain damage may result even after resuscitation at exposures to this lower oxygen level. Below 6% breathing is in gasps and convulsions may occur. Inhalation of a mixture containing no oxygen may result in unconsciousness from the first breath and death will follow in a few minutes. |
|              | WARNING:Intentional misuse by concentrating/inhaling contents may be lethal.<br>Systemic effects of acetone inhalation exposure include central nervous system depression, light-headedness, incoherent<br>speech, ataxia, stupor, hypotension, tachycardia, metabolic acidosis, hyperglycaemia and ketosis. Rarely, convulsions and<br>tubular necrosis may be evident. Other symptoms of exposure may include restlessness, headache, vomiting, low blood-<br>pressure and rapid and irregular pulse, eye and throat irritation, weakness of the legs and dizziness. Inhalation of high<br>concentrations may produce dryness of the mouth and throat, nausea, uncoordinated movement, loss of coordinated<br>speech, drowsiness and, in severe cases, coma. Inhalation of acetone vapours over long periods causes irritation of the<br>respiratory tract, coughing and headache. Rats exposed to 52200 ppm vapour for 1 hour showed clear signs of narcosis;<br>fatalities occurred at 126600 ppm.  |
| Ingestion    | Accidental ingestion of the material may be damaging to the health of the individual.<br>Not normally a hazard due to physical form of product.<br>Considered an unlikely route of entry in commercial/industrial environments  |
|              | Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.<br>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.  |
|              | <ul> <li>The material may produce mild skin irritation; limited evidence or practical experience suggests, that the material either:</li> <li>produces mild inflammation of the skin in a substantial number of individuals following direct contact, and/or</li> <li>produces significant, but mild, 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.</li> </ul>  |
| Skin Contact | Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (non allergic). 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. 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          | 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<br>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.  |

|         | The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation, ulceration  |
|---------|---|
| Chronic | Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.<br>Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects<br>involving organs or biochemical systems.<br>Principal route of occupational exposure to the gas is by inhalation. |
|         | Workers exposed to 700 ppm acetone for 3 hours/day for 7-15 years showed inflammation of the respiratory tract, stomach and duodenum, attacks of giddiness and loss of strength. Exposure to acetone may enhance liver toxicity of chlorinated solvents.  |

| Stencil Spray 450, All | ΤΟΧΙCΙΤΥ                                   | IRRITATION                        |
|------------------------|--|-----------------------------------|
| Colours, 400g Aerosol  | Not Available                              | Not Available                     |
|                        | ΤΟΧΙΟΙΤΥ                                   | IRRITATION                        |
|                        | Dermal (rabbit) LD50: 20000<br>mg/kg       | Eye (human): 500 ppm - irritant   |
|                        | Inhalation (human) TCLo: 500<br>ppm        | Eye (rabbit): 20mg/24hr -moderate |
|                        | Inhalation (man) TCLo: 10<br>mg/m3/6 hr    | Eye (rabbit): 3.95 mg - SEVERE    |
| acetone                | Inhalation (man) TCLo: 12000<br>ppm/4 hr   | Skin (rabbit): 500 mg/24hr - mild |
|                        | Inhalation (rat) LC50: 50100<br>mg/m3/8 hr | Skin (rabbit):395mg (open) - mild |
|                        | Oral (man) TDLo: 2857<br>mg/kg             |                                   |
|                        | Oral (rat) LD50: 5800 mg/kg                |                                   |
|                        | Not Available                              | Not Available                     |
| hydrocarbon            | ΤΟΧΙCΙΤΥ                                   | IRRITATION                        |
| propellant             | Not Available                              | Not Available                     |

\* Value obtained from manufacturer's msds

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

|   | No significant acute toxicological data identified in literature search.<br>The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis<br>(nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.<br>Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the<br>epidermis.<br>for acetone:<br>The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitiser but is a defatting agent to the skin.<br>Acetone is an eye irritant. The subchronic toxicity of acetone has been examined in mice and rats that were administered<br>acetone in the drinking water and again in rats treated by oral gavage. Acetone-induced increases in relative kidney weight<br>changes were observed in male and female rats used in the oral 13-week study. Acetone treatment caused increases in<br>the relative liver weight in male and female rats that were not associated with histopathologic effects and the effects may<br>have been associated with microsomal enzyme induction. Haematologic effects consistent with macrocytic anaemia were<br>also noted in male rats along with hyperpigmentation in the spleen. The most notable findings in the mice were increased |
|---|---|
| Stencil Spray 450, All<br>Colours, 400g Aerosol | liver and decreased spleen weights. Overall, the no-observed-effect-levels in the drinking water study were 1% for male rats (900 mg/kg/d) and male mice (2258 mg/kg/d), 2% for female mice (5945 mg/kg/d), and 5% for female rats (3100 mg/kg/d). For developmental effects, a statistically significant reduction in foetal weight, and a slight, but statistically   |
|   | significant increase in the percent incidence of later resorptions were seen in mice at 15,665 mg/m3 and in rats at 26,100 mg/m3. The no-observable-effect level for developmental toxicity was determined to be 5220 mg/m3 for both rats and mice.   |
|   | Teratogenic effects were not observed in rats and mice tested at 26,110 and 15,665 mg/m3, respectively. Lifetime dermal carcinogenicity studies in mice treated with up to 0.2 mL of acetone did not reveal any increase in organ tumor incidence relative to untreated control animals.  |
|   | The scientific literature contains many different studies that have measured either the neurobehavioural performance or neurophysiological response of humans exposed to acetone. Effect levels ranging from about 600 to greater than 2375 mg/m3 have been reported. Neurobehavioral studies with acetone-exposed employees have recently shown that 8-hr  |
|   | exposures in excess of 2375 mg/m3 were not associated with any dose-related changes in response time, vigilance, or digit span scores. Clinical case studies, controlled human volunteer studies, animal research, and occupational field evaluations all indicate that the NOAEL for this effect is 2375 mg/m3 or greater.   |

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 epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

#### for acetone:

ACETONE

HYDROCARBON

PROPELLANT

The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitiser but is a defatting agent to the skin. Acetone is an eye irritant. The subchronic toxicity of acetone has been examined in mice and rats that were administered acetone in the drinking water and again in rats treated by oral gavage. Acetone-induced increases in relative kidney weight changes were observed in male and female rats used in the oral 13-week study. Acetone treatment caused increases in the relative liver weight in male and female rats that were not associated with histopathologic effects and the effects may have been associated with microsomal enzyme induction. Haematologic effects consistent with macrocytic anaemia were also noted in male rats along with hyperpigmentation in the spleen. The most notable findings in the mice were increased liver and decreased spleen weights. Overall, the no-observed-effect-levels in the drinking water study were 1% for male rats (900 mg/kg/d) and male mice (2258 mg/kg/d), 2% for female mice (5945 mg/kg/d), and 5% for female rats (3100 mg/kg/d). For developmental effects, a statistically significant reduction in foetal weight, and a slight, but statistically significant increase in the percent incidence of later resorptions were seen in mice at 15,665 mg/m3 and in rats at 26,100 mg/m3. The no-observable-effect level for developmental toxicity was determined to be 5220 mg/m3 for both rats and mice.

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No significant acute toxicological data identified in literature search.

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 ( $\sim$  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

reproductive toxicity of these constituents from most to least toxic is:

**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

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) |                             |  |
|--------------------------------------|---|-----------------------------|--|
|                                      | 0   |                             | 0                                      |
| Acute Toxicity                       | 0   | Carcinogenicity             | 0                                      |
| Skin<br>Irritation/Corrosion         | 0   | Reproductivity              | 0                                      |
| Serious Eye<br>Damage/Irritation     | *   | STOT - Single<br>Exposure   | *                                      |
| Respiratory or Skin<br>sensitisation | 0   | STOT - Repeated<br>Exposure | 0                                      |
| Mutagenicity                         | 0   | Aspiration Hazard           | 0                                      |
|                                      |   | Legend: 👽 – Data requ       | uired to make classification available |

Data required to make classification available
 Data available but does not fill the criteria for classification

🕥 – Data Not Available to make classification

#### **CMR STATUS**

Not Applicable

## SECTION 12 ECOLOGICAL INFORMATION

#### Toxicity

#### NOT AVAILABLE

| Ingredient                | Endpoint      | Test Duration | Effect        | Value         | Species       | BCF           |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| acetone                   | Not Available |
| pigment                   | Not Available |
| additives                 | Not Available |
| hydrocarbon<br>propellant | Not Available |

#### For ketones:

Ketones, unless they are alpha, beta--unsaturated ketones, can be considered as narcosis or baseline toxicity compounds

Hydrolysis may also involve the addition of water to ketones to yield ketals under mild acid conditions. However, this addition of water is thermodynamically favorable only for low molecular weight ketones. This addition is an equilibrium reaction that is reversible upon a change of water concentration and the reaction ultimately leads to no permanent change in the structure of the ketone substrateThe higher molecular weight ketones do no form stable ketals. Therefore, the ketones are stable to water under ambient environmental conditions

Another possible reaction of ketones in water involves the enolic hydrogen on the carbons bonded to the carbonyl function. Under conditions of high pH (pH greater than 10), the enolic proton is abstracted by base (OH-) forming a carbanion intermediate that may react with other organic substrates (*e.g.*, ketones, esters, aldehydes) containing a center for nucleophilic attack. The reactions, commonly recognized as condensation reactions, produce higher molecular weight products. Under ambient conditions of temperature, pH, and low concentration, these condensation reactions are unfavorable. Based on its reactions in air, it seems likely that ketones undergo photolysis in water. It is probable that ketones will be biodegraded to an appreciable degree by micro-organisms in soil and water. They are unlikely to bioconcentrate or biomagnify.

#### **DO NOT** discharge into sewer or waterways.

for acetone: log Kow: -0.24 Half-life (hr) air: 312-1896 Half-life (hr) H2O surface water: 20 Henry's atm m3 /mol: 3.67E-05 BOD 5: 0.31-1.76,46-55% COD: 1.12-2.07 ThOD: 2.2 BCF: 0.69

#### Environmental fate:

Acetone preferentially locates in the air compartment when released to the environment. A substantial amount of acetone can also be found in water, which is consistent with the high water to air partition coefficient and its small, but detectable, presence in rain water, sea water, and lake water samples. Very little acetone is expected to reside in soil, biota, or suspended solids. This is entirely consistent with the physical and chemical properties of acetone and with measurements showing a low propensity for soil absorption and a high preference for moving through the soil and into the ground water In air, acetone is lost by photolysis and reaction with photochemically produced hydroxyl radicals; the estimated half-life of these combined processes is about 22 days. The relatively long half-life allows acetone to be transported long distances from its emission source.

Acetone is highly soluble and slightly persistent in water, with a half-life of about 20 hours; it is minimally toxic to aquatic life.

Acetone released to soil volatilises although some may leach into the ground where it rapidly biodegrades.

Acetone does not concentrate in the food chain.

Acetone meets the OECD definition of readily biodegradable which requires that the biological oxygen demand (BOD) is at least 70% of the theoretical oxygen demand (THOD) within the 28-day test period

Drinking Water Standard: none available.

Soil Guidelines: none available.

Air Quality Standards: none available.

### Issue Date: 01/01/2013 Print Date: 02/02/2015

## Stencil Spray 450, All Colours, 400g Aerosol

#### Ecotoxicity:

Testing shows that acetone exhibits a low order of toxicity Fish LC50: brook trout 6070 mg/l; fathead minnow 15000 mg/l

Bird LC0 (5 day): Japanese quail, ring-neck pheasant 40,000 mg/l

Daphnia magna LC50 (48 h): 15800 mg/l; NOEC 8500 mg/l

Aquatic invertebrate 2100 - 16700 mg/l

Aquatic plant NOEC: 5400-7500 mg/l

Daphnia magna chronic NOEC 1660 mg/l

Acetone vapors were shown to be relatively toxic to two types insects and their eggs. The time to 50% lethality (LT50) was found to be 51.2 hr and 67.9 hr when the flour beetle (*Tribolium confusum*) and the flour moth (*Ephestia kuehniella*) were exposed to an airborne acetone concentration of 61.5 mg/m3. The LT50 values for the eggs were 30-50% lower than for the adult. The direct application of acetone liquid to the body of the insects or surface of the eggs did not, however, cause any mortality.

The ability of acetone to inhibit cell multiplication has been examined in a wide variety of microorganisms. The results have generally indicated mild to minimal toxicity with NOECs greater than 1700 mg/L for exposures lasting from 6 hr to 4 days. Longer exposure periods of 7 to 8 days with bacteria produced mixed results; but overall the data indicate a low degree of toxicity for acetone. The only exception to these findings were the results obtained with the flagellated protozoa (*Entosiphon sulcatum*) which yielded a 3-day NOEC of 28 mg/L.

## Persistence and degradability

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

## **Bioaccumulative potential**

| Ingredient | Bioaccumulation |
|------------|-----------------|
| acetone    | LOW (BCF = 69)  |

## Mobility in soil

| Ingredient | Mobility           |
|------------|--------------------|
| acetone    | HIGH (KOC = 1.981) |

#### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

|                     | Locialation addressing waste diapooel requirements may differ by country, state and/or tarritory. Each year must refer to          |
|---------------------|--|
|                     | 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  |
|                     | <ul> <li>Disposal (if all else fails)</li> </ul>   |
|                     | 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 |
| Product / Packaging | considerations should also be applied in making decisions of this type. Note that properties of a material may change in use,      |
| disposal            | 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.  |
|                     | <ul> <li>Consult State Land Waste Management Authority for disposal.</li> </ul>  |
|                     | <ul> <li>Discharge contents of damaged aerosol cans at an approved site.</li> </ul>  |
|                     | Allow small quantities to evaporate.   |
|                     | • DO NOT incinerate or puncture aerosol cans.  |
|                     | <ul> <li>Bury residues and emptied aerosol cans at an approved site.</li> </ul>  |

## **SECTION 14 TRANSPORT INFORMATION**

| FLAMAGE<br>GAS<br>2 |
|---------------------|
| NO                  |
| 2YE                 |
|                     |

## Land transport (ADG)

| UN number                       | 1950   |  |  |
|---------------------------------|--|--|--|
| Packing group                   | Not Applicable   |  |  |
| UN proper shipping<br>name      | AEROSOLS   |  |  |
| Environmental hazard            | No relevant data   |  |  |
| Transport hazard<br>class(es)   | Class 2.1<br>Subrisk Not Applicable                            |  |  |
| Special precautions<br>for user | Special provisions63 190 277 327 344Limited quantitySee SP 277 |  |  |

#### Air transport (ICAO-IATA / DGR)

| UN number                       | 1950  |                |              |  |
|---------------------------------|---|----------------|--------------|--|
| Packing group                   | Not Applicable  |                |              |  |
| UN proper shipping<br>name      | Aerosols, flammable                                       |                |              |  |
| Environmental hazard            | No relevant data  |                |              |  |
| Transport hazard<br>class(es)   | ICAO/IATA Class   | 2.1            |              |  |
|                                 | ICAO / IATA Subrisk                                       | Not Applicable |              |  |
|                                 | ERG Code  | 10L            |              |  |
|                                 | Special provisions  |                | A145A167A802 |  |
|                                 | Cargo Only Packing Instructions                           |                | 203          |  |
|                                 | Cargo Only Maximum Qty / Pack                             |                | 150 kg       |  |
| Special precautions<br>for user | Passenger and Cargo Packing Instructions                  |                | 203          |  |
| IOI 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   |  |  |
|---------------------------------|--|--|--|
| Packing group                   | Not Applicable   |  |  |
| UN proper shipping<br>name      | AEROSOLS   |  |  |
| Environmental hazard            | No relevant data   |  |  |
| Transport hazard<br>class(es)   | IMDG Class2.1IMDG SubriskSee SP63  |  |  |
| Special precautions<br>for user | EMS NumberF-D , S-USpecial provisions63 190 277 327 344 959Limited QuantitiesSee SP277 |  |  |

## SECTION 15 REGULATORY INFORMATION

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

acetone(67-64-1) is found on the following regulatory lists hydrocarbon propellant(68476-85-7.) is found on the following regulatory

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

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

lists

## **SECTION 16 OTHER INFORMATION**

## Other information

#### Ingredients with multiple cas numbers

| Name                   | CAS No                   |
|------------------------|--------------------------|
| hydrocarbon propellant | 68476-85-7., 68476-86-8. |

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

A list of reference resources used to assist the committee may be found at:

#### www.chemwatch.net/references

The (M)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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