SUPER SUPREME TRAFFIC PAINT WHITE

ChemWatch Material Safety Data Sheet (REVIEW)
CHEMWATCH 47786
Date of Issue: Tue 27-Jul-1999

IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS ACCORDING TO WORKSAFE AUSTRALIA CRITERIA.
CONSIDERED A DANGEROUS SUBSTANCE ACCORDING TO
DIRECTIVE 67/548/EEC, POINT 4; AND TO 29 CFP 1910-1200 (USA).

CHEMWATCH HAZARD RATINGS

Flammability: 4
Toxicity: 2
Body Contact: 2
Reactivity: 0
Chronic: 1
SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

PERSONAL PROTECTIVE EQUIPMENT FOR INDUSTRIAL/COMMERCIAL ENVIRONMENTS

Product Name: Fox Valley Super Supreme Traffic Paint White
Other Names:

Manufacturer's Code 1300.01

CAS RN No(s):	None
UN Number:	1950
Packaging Group:	None
Dangerous Goods Class:	2.1
Subsidiary Risk:	None
Hazchem Code:	2Y
Poisons Schedule Number:	None

USE

Line/stripe marking paint. Application is by spray atomisation from a hand held aerosol pack.

PHYSICAL DESCRIPTION/PROPERTIES

APPEARANCE

White liquid with solvent odour; does not mix with water. Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant.

Boiling Point (deg C):	Not available.
Melting Point (deg C):	Not available.
Vapour Pressure (kPa):	Not available.
Specific Gravity:	0.99-1.06
Flash Point (deg C):	-40
Lower Explosive Limit (%):	1.9
Upper Explosive Limit (%):	8.5
Solubility in Water (g/L):	Immiscible

INGREDIENTS

NAME	CAS RN	%
toluene	108-88-3	10-20
solvent naphtha petroleum, light aliphatic	64742-89-8.	5-15
xylene	1330-20-7	3-10
ethylene glycol monobutyl ether	111-76-2	1-5
resin		Not spe
pigment		Not spe
hydrocarbon propellant	68476-85-7.	15-35

HEALTH HAZARD

ACUTE HEALTH EFFECTS

SWALLOWED

The liquid is toxic and discomforting to the gastro-intestinal tract. Ingestion may result in nausea, pain, vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis. Considered an unlikely route of entry in commercial/industrial environments.

EYE

The vapour is discomforting to the eyes. The liquid is highly discomforting 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. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

The liquid is moderately discomforting to the skin, it is slowly absorbed and is capable of causing skin reactions which may lead to dermatitis from repeated exposures over long periods. Toxic effects may result from skin absorption. Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard. 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 (oedema) which may progress to vesiculation, scaling and thickening of the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

INHALED

The vapour is discomforting to the upper respiratory tract and lungs. Inhalation hazard is increased at higher temperatures. 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. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death. WARNING:Intentional misuse by concentrating/inhaling contents may be lethal.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are by skin contact/absorption and inhalation of mist/vapours. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS] Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following. Warning: Aerosol containers may present pressure related hazards.

FIRST AID

SWALLOWED

If poisoning occurs, contact a doctor or Poisons Information Centre.
In Australia phone 13 1126; New Zealand 03 4747000
If swallowed, do NOT induce vomiting. Give a glass of water.

EYE

If this product comes in contact with the eyes:
1: Immediately hold the eyes open and wash continuously for at least 15
minutes with fresh running water.
2: 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.
3: Transport to hospital or doctor without delay.

4: Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If solids or aerosol mists are deposited upon the skin:
1: Wash affected areas thoroughly with water and soap if available.
2: Remove any adhering solids with industrial skin cleansing cream.
3: DO NOT use solvents.
4: Seek medical attention in the event of irritation.

INHALED

1: If fumes or combustion products are inhaled: Remove to fresh air.
2: Lay patient down. Keep warm and rested.
3: Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures
4: 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.
5: Transport to hospital, or doctor.

ADVICE TO DOCTOR

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

1. Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
2. 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.
3. 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
4. A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
5. 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.
6. Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients.

[Ellenhorn and Barceloux: Medical Toxicology].

PRECAUTIONS FOR USE

EXPOSURE STANDARDS

None assigned. Refer to individual constituents.

TOLUENE

ES TWA: 100 ppm, 377 mg/m3; STEL: 150 ppm, 565 mg/m3 (Under review)

PROPOSED CHANGE

ES TWA 50 ppm, 188 mg/m3 SKIN

TLV TWA: 50 ppm, 188 mg/m3 SKIN A4

OES TWA: 50 ppm, 191 mg/m3; STEL: 150 ppm, 574 mg/m3 SKIN

MAK value: 50 ppm, 190 mg/m3

MAK Category II Peak Limitation: For substances with systemic effects and with a half-life in humans ranging from two hours to shift-length. Allows excursions of 5 times the MAK value, for 30 minutes (on average), twice per shift.

IDLH Level: 500 ppm

Odour Threshold Value: 0.16-6.7 (detection), 1.9-69 (recognition)

NOTE: Detector tubes measuring in excess of 5 ppm, are available.

High concentrations of toluene in the air produce depression of the central nervous system (CNS) in humans. Intentional toluene exposure (glue-sniffing) at maternally-intoxicating concentration has also produced birth defects. Foetotoxicity appears at levels associated with CNS narcosis and probably occurs only in those with chronic toluene-induced kidney failure. Exposure at or below the recommended TLV-TWA is thought to prevent transient headache and irritation, to provide a measure of safety for possible disturbances to human reproduction, the prevention of reductions in cognitive responses reported amongst humans inhaling greater than 40 ppm, and the significant risks of hepatotoxic, behavioural and nervous system effects (including impaired reaction time and incoordination). Although toluene/ethanol interactions are well recognised, the degree of protection afforded by the TLV-TWA among drinkers is not known.

SOLVENT NAPHTHA PETROLEUM, LIGHT ALIPHATIC

CEL TWA: 200 ppm, 800 mg/m3 [SHELL]

XYLENE

TLV TWA: 100 ppm, 434 mg/m3; STEL: 150 ppm, 651 mg/m3 A4

ES TWA: 80 ppm, 350 mg/m3; STEL: 150 ppm, 655 mg/m3 (Under review)

OES TWA: 100 ppm, 441 mg/m3; STEL: 150 ppm, 662 mg/m3 skin

IDLH Level: 900 ppm

Odour Threshold Value: 20 ppm (detection), 40 ppm (recognition)

NOTE: Detector tubes for o-xylene, measuring in excess of 10 ppm, are available commercially. (m-xylene and p-xylene give almost the same response)

Xylene vapour is an irritant to the eyes, mucous membranes and skin and causes narcosis at high concentrations. Exposure to doses sufficiently high to produce intoxication and unconsciousness also produces transient liver and kidney toxicity. Neurologic impairment is NOT evident amongst volunteers inhaling up to 400 ppm though complaints of ocular and upper respiratory tract irritation occur at 200 ppm for 3 to 5 minutes. Exposure to xylene at or below the recommended TLV-TWA and STEL is thought to minimise the risk of irritant effects and to produce neither significant narcosis or chronic injury. An earlier skin notation was deleted because percutaneous absorption is gradual and protracted and does not substantially contribute to the dose received by inhalation.

ETHYLENE GLYCOL MONOBUTYL ETHER

TLV TWA: 20 ppm, 97 mg/m3 (skin)

ES TWA: 25 ppm, 121 mg/m3 (skin) Under review

OES TWA: 25 ppm, 123 mg/m3 (skin)
MAK value: 20 ppm, 100 mg/m3
Designated H in List of MAK values: Danger of cutaneous absorption. Absorption of such substances through the skin can pose an incomparably larger danger of toxicity than their inhalation. To avoid health risks when handling such substances, meticulous cleaning of the skin, hair and clothing is imperative.
MAK Category II Peak Limitation: For substances with systemic effects and with a half-life in humans of less than two hours.
Allows excursions of 2 times the MAK value, for 30 minutes (on average), four times per shift.
Odour Threshold Value: 0.10 ppm (detection), 0.35 ppm (recognition)
IDLH Level: 700 ppm
Although rats appear to be more susceptible than other animals anaemia is not uncommon amongst humans following exposure. The TLV reflects the need to maintain exposures below levels found to cause blood changes in experimental animals. It is concluded that this limit will reduce the significant risk of irritation, haematologic effects and other systemic effects observed in humans and animals exposed to higher vapour concentrations. The toxic effects typical of some other glycol ethers (pancytopenia, testis atrophy and teratogenic effects) are not found with this substance.

HYDROCARBON PROPELLANT

hydrocarbon propellant, as liquified petroleum gas
TLV TWA: 1000 ppm, 1800 mg/m3
ES TWA: 1000 ppm, 1800 mg/m3
OES TWA: 1000 ppm, 1750 mg/m3; STEL: 1250 ppm, 2180 mg/m3

FOR EACH OF THE FOLLOWING
TOLUENE
XYLENE

NOTE: This substance has been classified by the ACGIH as A4 NOT classifiable as causing Cancer in humans.

FOR EACH OF THE FOLLOWING
TOLUENE
ETHYLENE GLYCOL MONOBUTYL ETHER

MAK Group C: There is no reason to fear risk of damage to the developing embryo when MAK and BAT values are observed.

FOR EACH OF THE FOLLOWING
TOLUENE
ETHYLENE GLYCOL MONOBUTYL ETHER

MAK values, and categories and groups are those recommended within the Federal Republic of Germany.

FOR EACH OF THE FOLLOWING
TOLUENE
XYLENE
ETHYLENE GLYCOL MONOBUTYL ETHER

Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.

REPRODUCTIVE HEALTH GUIDELINES

Established occupational exposure limits frequently do not take into consideration reproductive end points that are clearly below the thresholds for other toxic effects. Occupational reproductive guidelines

(ORGs) have been suggested as an additional standard. These have been established after a literature search for reproductive no-observed-adverse effect-level (NOAEL) and the lowest-observed-adverse-effect-level (LOAEL). In addition the US EPA's procedures for risk assessment for hazard identification and dose-response assessment as applied by NIOSH were used in the creation of such limits. Uncertainty factors (UFs) have also been incorporated.

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ORG	UF	Endpoint	CR	TLV Adequate.
toluene 9.6 mg/m3	10	D	NA	-
xylene 1.5 mg/m3	10	D	NA	-
ethylene glycol monobutyl ether 3.6 mg/m3	100	D	NA	-

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These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits.
ORGS represent an 8-hour time-weighted average unless specified otherwise.
CR = Cancer Risk/10000; UF = Uncertainty factor:
TLV believed to be adequate to protect reproductive health:
LOD: Limit of detection
Toxic endpoints have also been identified as:
D = Developmental; R = Reproductive; TC = Transplacental carcinogen
Jankovic J., Drake F.: A Screening Method for Occupational Reproductive Health Risk:
American Industrial Hygiene Association Journal 57: 641-649 (1996).
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ENGINEERING CONTROLS

General exhaust is adequate under normal operating 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.

PERSONAL PROTECTION

EYE

No special equipment for minor exposure i.e. when handling small quantities.
OTHERWISE: Safety glasses with side shields.
Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS/FEET

No special equipment needed when handling small quantities.
OTHERWISE: Wear general protective gloves, eg. light weight rubber gloves.
Or as required: Wear chemical protective gloves, eg. PVC.
Wear safety footwear.

OTHER

No special equipment needed when handling small quantities. OTHERWISE:
1: Overalls.
2: Skin cleansing cream.
3: Eyewash unit.
4: Do not spray on hot surfaces.

RESPIRATOR

Respiratory protection may be required when ANY "Worst Case" vapour-phase concentration is exceeded (see Computer Prediction in "Exposure Standards").

Protection Factor (Min)	Half-Face Respirator	Full-Face Respirator	Spray/ Mist Spatter
5 x ES	A -AUS A -PAPR-AUS	-	A -AUS A -PAPR-AUS
25 x ES	Air-line*	A -2 A -PAPR-2	A -2 ^ A -PAPR-2 ^
50 x ES	-	A -3	A -3 ^
50+ x ES	-	Air-line**	Air-line** ^

* - Continuous-flow; ** - Continuous-flow or positive pressure demand
^ - Full-face.
The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information, consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

SAFE HANDLING

STORAGE AND TRANSPORT

SUITABLE CONTAINER

Aerosol dispenser. Check that containers are clearly labelled.

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers.

STORAGE REQUIREMENTS

Keep dry to avoid corrosion of cans.
Corrosion may result in container perforation and
internal pressure may eject contents of can
1: Store in original containers in approved flame-proof area.
2. DO NOT store in pits, depressions, basements or areas where vapours
may be trapped.
3: No smoking, naked lights, heat or ignition sources.

4: Keep containers securely sealed. Contents under pressure.
5: Store away from incompatible materials.
6: Store in a cool, dry, well ventilated area in an upright position.
7: Avoid storage at temperatures higher than 40 deg C.
8: Protect containers against physical damage and check regularly for leaks.
9: Observe manufacturer's storing and handling recommendations.

TRANSPORTATION

Class 2.1 - Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with:
Class 1 - Explosives;
Class 3 - Flammable liquids (where both flammable liquids and flammable gases are in bulk);
Class 4.1 - Flammable solids;
Class 4.2 - Spontaneously combustible substances;
Class 4.3 - Dangerous when wet substances;
Class 5.1 - Oxidising agents;
Class 5.2 - Organic peroxides;
Class 7 - Radioactive substances.

SPILLS AND DISPOSAL

MINOR SPILLS

1: Clean up all spills immediately.
2: Avoid breathing vapours and contact with skin and eyes.
3: Wear protective clothing, impervious gloves and safety glasses.
4: Shut off all possible sources of ignition and increase ventilation.
5: Wipe up.
6: If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
7: Undamaged cans should be gathered and stowed safely.

MAJOR SPILLS

1: Clear area of personnel and move upwind.
2: Alert Fire Brigade and tell them location and nature of hazard.
3: May be violently or explosively reactive.
4: Wear breathing apparatus plus protective gloves.
5: Prevent, by any means available, spillage from entering drains or water course.
6: No smoking, naked lights or ignition sources.
7: Increase ventilation.
8: Stop leak if safe to do so.
9: Water spray or fog may be used to disperse / absorb vapour.
10:Absorb or cover spill with sand, earth, inert materials or vermiculite.
11:If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
12:Undamaged cans should be gathered and stowed safely.
13:Collect residues and seal in labelled drums for disposal.

DISPOSAL

1: Consult State Land Waste Management Authority for disposal.
2: Discharge contents of damaged aerosol cans at an approved site.
3: Allow small quantities to evaporate.
4: DO NOT incinerate or puncture aerosol cans.
5: Bury residues and emptied aerosol cans at an approved site.

FIRE/EXPLOSION HAZARD

1: Liquid and vapour are highly flammable.
2: Severe fire hazard when exposed to heat or flame.
3: Vapour forms an explosive mixture with air.
4: Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
5: Vapour may travel a considerable distance to source of ignition.
6: Heating may cause expansion or decomposition with violent container rupture.
7: Aerosol cans may explode on exposure to naked flames.
8: Rupturing containers may rocket and scatter burning materials.
9: Hazards may not be restricted to pressure effects.
10:May emit acrid, poisonous or corrosive fumes.
11:On combustion, may emit toxic fumes of carbon monoxide (CO).
Other combustion products include carbon dioxide (CO2).

CONTACT POINT

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COMPANY CONTACT
(07) 3375 3477

AUSTRALIAN POISONS INFORMATION CENTRE
24 HOUR SERVICE:                    13 11 26
POLICE, FIRE BRIGADE OR AMBULANCE:  000

NEW ZEALAND POISONS INFORMATION CENTRE
24 HOUR SERVICE:        (03) 4747 000
NZ EMERGENCY SERVICES:  111

End of Report (REVIEW)

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