

TIRE SHINE

Chemwatch Material Safety Data Sheet
Issue Date: 27-Nov-2008
NA477ECP

CHEMWATCH 4686-75
Version No:2.0
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

TIRE SHINE

STATEMENT OF HAZARDOUS NATURE

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

OTHER NAMES

Touchless Tire Shine, TS2

PROPER SHIPPING NAME

AEROSOLS

PRODUCT USE

» Application is by spray atomisation from a hand held aerosol pack.
Tire shine.

SUPPLIER

Company: Pro- Sales Direct Ltd
Address:
Suite G, 1 Kingdon Street
Newmarket
Auckland
New Zealand
Telephone: +64 9 520 1900
Fax: +64 9 520 1905

Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Eye Irritation Category 2B
Skin Corrosion/Irritation Category 3

EMERGENCY OVERVIEW

HAZARD

WARNING

Determined by Chemwatch using GHS/HSNO criteria:
6.3B 6.4A

Causes mild skin irritation
Causes eye irritation

PRECAUTIONARY STATEMENTS

Prevention

Wash thoroughly after handling.

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

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Section 2 - HAZARDS IDENTIFICATION

present and easy to do. Continue rinsing.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/attention.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME | CAS RN | % |
|----------------------------------|-------------|------|
| emulsion formulation proprietary | | >60 |
| hydrocarbon propellant | 68476-85-7. | 5-10 |

Section 4 - FIRST AID MEASURES

NEW ZEALAND POISONS INFORMATION CENTRE 0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111

SWALLOWED

- » Not considered a normal route of entry.
- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

- » If aerosols come in contact with the eyes:
- Immediately hold the eyelids apart and flush the eye 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.
- If pain persists or recurs seek medical attention.
- 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:
- 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.

INHALED

- » 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.

NOTES TO PHYSICIAN

- » Treat symptomatically.

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Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

» SMALL FIRE:

- Water spray, dry chemical or CO₂

LARGE FIRE:

- Water spray or fog.

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.

When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 100 metres in all directions.

FIRE/EXPLOSION HAZARD

» - Non combustible.

- Not considered to be a significant fire risk.

- Heating may cause expansion or decomposition leading to violent rupture of containers.

- 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.

- Decomposes on heating and may emit toxic fumes of carbon monoxide (CO).

Decomposition may produce toxic fumes of: carbon dioxide (CO₂).

FIRE INCOMPATIBILITY

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

Personal Protective Equipment

Gas tight chemical resistant suit.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

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.

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Section 6 - ACCIDENTAL RELEASE MEASURES

MAJOR SPILLS

- » - 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 MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- » - Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- DO NOT incinerate or puncture aerosol cans.
- DO NOT spray directly on humans, exposed food or food utensils.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

- » - Aerosol dispenser.
- Check that containers are clearly labelled.

STORAGE INCOMPATIBILITY

- » - Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS

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

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source

Material

TWA ppm

TWA mg/m³

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

| | | | |
|--|--|--------|--------|
| New Zealand Workplace Exposure Standards (WES) | hydrocarbon propellant (LPG (Liquefied petroleum gas)) | 1, 000 | 1, 800 |
|--|--|--------|--------|

EMERGENCY EXPOSURE LIMITS

| | | |
|------------------------|----------------------------|--------------------------|
| Material | Revised IDLH Value (mg/m3) | Revised IDLH Value (ppm) |
| hydrocarbon propellant | | 2, 000 [LEL] |

NOTES

Values marked LEL indicate that the IDLH was based on 10% of the lower explosive limit for safety considerations even though the relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations.

MATERIAL DATA

» Not available. Refer to individual constituents.

INGREDIENT DATA

HYDROCARBON PROPELLANT:

PERSONAL PROTECTION

EYE

» No special equipment for minor exposure i.e. when handling small quantities.

OTHERWISE: For potentially moderate or heavy exposures:

- Safety glasses with side shields.
- NOTE: 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:

- 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.

OTHER

» No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Skin cleansing cream.
- Eyewash unit.
- Do not spray on hot surfaces.

RESPIRATOR

» Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Breathing Zone Level ppm (volume) | Maximum Protection Factor | Half- face Respirator | Full- Face Respirator |
|-----------------------------------|---------------------------|-----------------------|-----------------------|
| 1000 | 10 | AX- AUS | - |
| 1000 | 50 | - | AX- AUS |
| 5000 | 50 | Airline * | - |
| 5000 | 100 | - | AX- 2 |

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

| | | | |
|-------|------|---|-----------|
| 10000 | 100 | - | AX- 3 |
| | 100+ | | Airline** |

* - Continuous Flow ** - Continuous-flow or positive pressure demand.

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.

ENGINEERING CONTROLS

» 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.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

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

White liquid with slight odour; mixes with water.

PHYSICAL PROPERTIES

Liquid.

Gas.

Mixes with water.

Molecular Weight: Not Applicable

Melting Range (°C): Not Available

Solubility in water (g/L): Miscible

pH (1% solution): Not Available

Volatile Component (%vol): <10 VOC

Relative Vapour Density (air=1): >1

Lower Explosive Limit (%): 2.0 propellant

Autoignition Temp (°C): Not Available

State: Liquid

Boiling Range (°C): 100 concentrate

Specific Gravity (water= 1): 1.0 concentrate

pH (as supplied): Not Available

Vapour Pressure (kPa): Not Available

Evaporation Rate: >1 BuAC = 1

Flash Point (°C): None (concentrate); - 104 (propellant)

Upper Explosive Limit (%): 10.0 propellant

Decomposition Temp (°C): Not Available

Viscosity: Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

» - Elevated temperatures.

- Presence of open flame.

- Product is considered stable.

- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

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Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

- » Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.
- » Not normally a hazard due to physical form of product.

EYE

- » Spray mist may produce discomfort.
- » Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

SKIN

- » The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
- » Spray mist may produce discomfort.
- » The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives .

INHALED

- » The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
- » Acute effects from inhalation of high vapour concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea.
- » WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.

CHRONIC HEALTH EFFECTS

- » Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

TOXICITY AND IRRITATION

- » Not available. Refer to individual constituents.

HYDROCARBON PROPELLANT:

- » Not available. Refer to individual constituents.

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Section 12 - ECOLOGICAL INFORMATION

Marine Pollutant: Not Determined

» DO NOT discharge into sewer or waterways.
Refer to data for ingredients, which follows:

HYDROCARBON PROPELLANT:

Marine Pollutant: Not Determined

» For hydrocarbons:

Environmental fate:

The lower molecular weight hydrocarbons are expected to form a "slick" on the surface of waters after release in calm sea conditions. This is expected to evaporate and enter the atmosphere where it will be degraded through reaction with hydroxy radicals.

Some hydrocarbon will become associated with benthic sediments, and it is likely to be spread over a fairly wide area of sea floor. Marine sediments may be either aerobic or anaerobic. The material, in probability, is biodegradable, under aerobic conditions (isomerised olefins and alkenes show variable results). Evidence also suggests that the hydrocarbons may be degradable under anaerobic conditions although such degradation in benthic sediments may be a relatively slow process.

Under aerobic conditions hydrocarbons degrade to water and carbon dioxide, while under anaerobic processes they produce water, methane and carbon dioxide.

Alkenes have low log octanol/water partition coefficients (Kow) of about 1 and estimated bioconcentration factors (BCF) of about 10; aromatics have intermediate values (log Kow values of 2-3 and BCF values of 20-200), while C5 and greater alkanes have fairly high values (log Kow values of about 3-4.5 and BCF values of 100-1,500)

The estimated volatilisation half-lives for alkanes and benzene, toluene, ethylbenzene, xylene (BTEX) components were predicted as 7 days in ponds, 1.5 days in rivers, and 6 days in lakes. The volatilisation rate of naphthalene and its substituted derivatives were estimated to be slower

Indigenous microbes found in many natural settings (e.g., soils, groundwater, ponds) have been shown to be capable of degrading organic compounds. Unlike other fate processes that disperse contaminants in the environment, biodegradation can eliminate the contaminants without transferring them across media.

The final products of microbial degradation are carbon dioxide, water, and microbial biomass. The rate of hydrocarbon degradation depends on the chemical composition of the product released to the environment as well as site-specific environmental factors. Generally the straight chain hydrocarbons and the aromatics are degraded more readily than the highly branched aliphatic compounds. The n-alkanes, n-alkyl aromatics, and the aromatics in the C10-C22 range are the most readily biodegradable; n-alkanes, n-alkyl aromatics, and aromatics in the C5-C9 range are biodegradable at low concentrations by some microorganisms, but are generally preferentially removed by volatilisation and thus are unavailable in most environments; n-alkanes in the C1-C4 ranges are biodegradable only by a narrow range of specialised hydrocarbon degraders; and n-alkanes, n-alkyl aromatics, and aromatics above C22 are generally not available to degrading microorganisms. Hydrocarbons with condensed ring structures, such as PAHs with four or more rings, have been shown to be relatively resistant to biodegradation. PAHs with only 2 or 3 rings (e.g., naphthalene, anthracene) are more easily biodegraded. In almost all cases, the presence of oxygen is essential for effective biodegradation of oil. The ideal pH range to promote biodegradation is close to neutral (6-8). For most species, the optimal pH is slightly alkaline, that is, greater than 7.

All biological transformations are affected by temperature. Generally, as the temperature increases, biological activity tends to increase up to a temperature where enzyme denaturation occurs.

Atmospheric fate: Alkanes, isoalkanes, and cycloalkanes have half-lives on the order of 1-10 days, whereas alkenes, cycloalkenes, and substituted benzenes have half-lives of 1 day or less. Photochemical oxidation products include aldehydes, hydroxy compounds, nitro compounds, and peroxyacyl nitrates. Alkenes, certain substituted aromatics, and naphthalene are potentially susceptible to direct photolysis.

Ecotoxicity:

Based on test results, as well as theoretical considerations, the potential for bioaccumulation may be high. Toxic effects are often observed in species such as blue mussel, daphnia, freshwater green algae, marine copepods and amphipods.

The values of log Kow for individual hydrocarbons increase with increasing carbon number within homologous series of generic types. Quantitative structure activity relationships (QSAR), relating log Kow values of single hydrocarbons to toxicity, show that water solubility decreases more rapidly with increasing Kow than

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Section 12 - ECOLOGICAL INFORMATION

does the concentration causing effects. This relationship varies somewhat with species of hydrocarbon, but it follows that there is a log Kow limit for hydrocarbons, above which, they will not exhibit acute toxicity; this limit is at a log Kow value of about 4 to 5. It has been confirmed experimentally that for fish and invertebrates, paraffinic hydrocarbons with a carbon number of 10 or higher (log Kow >5) show no acute toxicity and that alkylbenzenes with a carbon number of 14 or greater (log Kow >5) similarly show no acute toxicity. QSAR equations for chronic toxicity also suggest that there should be a point where hydrocarbons with high log Kow values become so insoluble in water that they will not cause chronic toxicity, that is, that there is also a solubility cut-off for chronic toxicity. Thus, paraffinic hydrocarbons with carbon numbers of greater than 14 (log Kow >7.3) should show no measurable chronic toxicity.

» Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.).

Section 13 - DISPOSAL CONSIDERATIONS

- » - 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 - TRANSPORTATION INFORMATION



Labels Required: NON-FLAMMABLE COMPRESSED GAS

HAZCHEM: None

UNDG:

| | | | |
|------------------------|----------|----------------|------|
| Dangerous Goods Class: | 2.2 | Subrisk: | None |
| UN Number: | 1950 | Packing Group: | None |
| Shipping Name: | AEROSOLS | | |

Air Transport IATA:

| | | | |
|---------------------|-------------------------|--------------------|------|
| ICAO/IATA Class: | 2.2 | ICAO/IATA Subrisk: | None |
| UN/ID Number: | 1950 | Packing Group: | None |
| Special provisions: | A98 A145 A153 | | |
| Shipping Name: | AEROSOLS, NON-FLAMMABLE | | |

Maritime Transport IMDG:

| | | | |
|---------------------|------------|---------------------|--------------------|
| IMDG Class: | 2.2 | IMDG Subrisk: | SP63 |
| UN Number: | 1950 | Packing Group: | None |
| EMS Number: | F- D, S- U | Special provisions: | 63 190 277 327 959 |
| Limited Quantities: | See SP277 | Marine Pollutant: | Not Determined |
| Shipping Name: | AEROSOLS | | |

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Section 15 - REGULATORY INFORMATION

REGULATIONS

Tire Shine (CAS: None):

No regulations applicable

hydrocarbon propellant (CAS: 68476-85-7) is found on the following regulatory lists;
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Hazardous Substances Register
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

OECD Representative List of High Production Volume (HPV) Chemicals
hydrocarbon propellant (CAS: 68476-86-8) is found on the following regulatory lists;
New Zealand Inventory of Chemicals (NZIoC)

OECD Representative List of High Production Volume (HPV) Chemicals

Specific advice on controls required for materials used in New Zealand can be found at

<http://www.ermanz.govt.nz/search/registers.html>

Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE

0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name

CAS

hydrocarbon

68476- 85- 7, 68476- 86- 8

propellant

» 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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