

Material Safety Data Sheet



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1. Chemical, Product & Company Information

Product Name: Nanoprotect® Automotive & Marine

Applicator: The Water Stain Doctor (NZ) Ltd
P.O Box 1321
Christchurch, New Zealand

Emergency Health Information: +64 3 312 6346
Emergency Spill: 1 (800) 424-9300
Information: Chemtrec (USA)
Other Product Information: +64 3 312 6346
e-mail: info@nanoprotect.co.nz

2. Composition, Information on Ingredients

Name	CAS #	% by Weight	Exposure Limit
Ethyl Alcohol 95%, denatured	64-17-5	>70	ACGIH TLV (USA, 2000) TWA: 1880mg/m ³ TWA: 1000ppm OSHA PEL 1989 (USA, 1989) TWA 1900mg/m ³ TWA: 1000ppm
Isopropyl Alcohol	67-63-0	<20	OSHA Permissible Exposure Limit (PEL): TWA: 400ppm
Metal Oxides	Listed	<1	
Metalloids		<1	N/A
Active Components		<1	
Water	7732-18-5	>5	N/A

3. Hazard Identification

Physical State: Liquid
Colour: Colourless
Emergency Overview: WARNING!
FLAMMABLE LIQUID AND VAPOUR
MAY CAUSE EYE IRRITATION
MAY CAUSE RESPIRATORY TRACT IRRITATION
If swallowed, may cause headaches, dizziness, drowsiness, nausea, and may lead to unconsciousness.

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Do not ingest. Avoid contact with skin and clothing. Do not breathe vapour or mist. Keep container closed.

Use with adequate ventilation

Wash hands thoroughly after handling

Potential Health Effects (see Toxicological Information – section 11)

Eyes:	May cause mild eye irritation
Skin:	Unlikely to cause appreciable irritation even on repeated contact. Unlikely to absorb in harmful amounts. Prolonged contact cause mild irritation.
Inhalation:	May cause respiratory tract irritation. Inhalation may cause headaches, dizziness, drowsiness and nausea.
Ingestion:	Swallowing may have the following effects: central nervous system depression, nausea/vomiting, and symptoms similar to alcohol intoxication.

4. First Aid Measures

Eye Contact:	In case of eye contact, immediately flush eyes with water for at least 15 minutes. Seek medical attention if irritation occurs.
Skin Contact:	In case of skin contact, flush skin with water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Seek medical attention if irritation occurs.
Inhalation:	If inhaled, remove to fresh air. Seek medical attention if symptoms appear.
Ingestion:	DO NOT induce vomiting unless directed by medical personnel. Never give any by mouth to an unconscious person. If swallowed in large volume, seek medical assistance immediately.

5. Fire Fighting Measures

Flammability of Product:	Flammable Liquid and Vapour
Auto ignition Temperature:	The lowest know value is 398.9°C (750°F) (ETHANOL)
Flash Points Flammable Limits:	CLOSED CUP: >21°C (69.8°F)
Products of Combustion:	These products are carbon oxides (CO, CO ₂)
Unusual Fire/Explosive Hazards:	High flammable in presence of open flames, sparks and static discharge. Vapour may cause flash fire. Vapours accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

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Fire Fighting Media & Instructions: SMALL FIRE: use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

LARGE FIRE: use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do not use straight streams of water.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH (or equivalent) approved self-contained breathing apparatus with full-face piece operated in the pressure demand or other positive pressure mode. Water spray can be used to extinguish fires and cool fire-exposed containers.

6. Accidental Release Measures

Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Stop leak if without risk. Use protective equipment (section 8).

Small Spill and/or Leak:

Add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer to a sealed, appropriate container for disposal.

Large Spill and/or Leak:

Dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimise contact of spilled material with soils to prevent runoff to surface waterways.

7. Handling & Storage

Handling:

Keep container closed. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion proof electrical ventilation, lighting and material handling equipment.

Storage:

Store out of direct sunlight in a segregated and approved area. Keep containers in a cool, well-ventilated area, closed and sealed until ready for use. Avoid possible sources of ignition (spark or flame). Keep container tightly closed.

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8. Exposure Controls, Personal Protection

Engineering Controls:	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.
Personal Protection:	
Eyes:	Avoid contact with eyes. Wear chemical splash goggles
Skin & Body:	Avoid contact with skin. Wear clothing and footwear that cannot be penetrated by chemical or oil
Respiratory:	Use with adequate ventilation. If ventilation is inadequate, use NIOSH certified respirator that will protect against organic odour
Hands:	Wear gloves that cannot be penetrated by chemicals or oils

9. Physical & Chemical Properties

Physical State	Liquid
Odour	Alcohol like
Colour	Colourless
Flash Point	< 21°C (70°F)
PH	
Boiling/Condensation	>76°C (168.8°F)
Point Melting/Freezing	May start to solidify at -113.84°C (-1172.9°F) (ETHANOL)
Point Specific Gravity	0.789 to 0.806 (Water = 1)
Vapour Pressure Vapour Density	Not Available
Odour Threshold	1.59 to 1.62 (Air = 1)
Evaporation Rate	Not Available
LogK..	1.7 (ETHANOL) compared to (n-BUTYL ACETATE = 1)
Dispersion	<1 (-0.32 ETHANOL)
Solubility	See solubility in water. Soluble in cold water

10. Stability & Reactivity

Stability & Reactivity:	The product is stable
Conditions to Avoid: (spark or flame).	High temperatures. Avoid all possible sources of ignition
Incompatibility with:	Oxidising agents, sulphuric acid, and nitric acid

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11. Toxicological Information

Acute Toxicity:	<p>Acute oral toxicity (LD50): 3450mg/kg (Mouse) (Ethanol)</p> <p>No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the US National Toxicology Program (NTP) or the US Occupational Safety and Health Act (OSHA).</p>
Chronic Toxicity:	<p>REPRODUCTION TOXICITY: Classified Reproductive system/toxin/female, reproductive system/toxin/male [PROVEN] [ETHANOL]</p>
Other Information:	<p>Irritancy – Skin: a single 4h semi-occlusive application to intact rabbit skin produced minimum signs of irritation (means scores for erythema or oedema less than 2). For Irritancy – Eye: The eye irritancy has been investigated by OECD Test method 405. Single application was insufficient to warrant classification as an eye irritant.</p> <p>Sensitisation: The material is not sensitising in standard animal tests. In rare cases non-irritant contact dermatitis has been identified in human after skin exposure to this material. Such cases have been identified as delayed hypersensitivity or as urticarial reactions. In reactive individuals such reactions may also be elicited by drinking alcoholic drinks or by cross-reaction to certain other alcohols.</p> <p>Sub-acute/Subchronic Toxicity: It has been shown in many animal experiments that the repeated oral consumption of large doses of ethanol can lead to damage in practically all organ systems. The main manifestations of the toxic effects are shown in the liver. Human data: In humans excessive consumption of alcoholic beverages during pregnancy is associated with the induction of Fetal Alcohol Syndrome in the offspring. Reduced birth weight and physical and mental defects occur. There is no evidence that such effects might be caused by exposure other than direct ingestion of alcoholic drinks. In humans high lifetime consumption of alcoholic beverages can be associated with certain cancers and effects on the liver. There is no evidence that these can be caused by exposure other than direct ingestion of alcoholic drinks (IARC 1988).</p>

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12. Ecological Information

Ecotoxicity: Practically non-toxic to aquatic organisms
 Persistence Potential: Product is readily biodegradable. The product is poorly absorbed onto soils or sediments

13. Disposal Considerations

Waste Information: Waste must be disposed of in accordance with federal, state and local environmental control regulations

14. Transport Information

The product is NOT classified as Dangerous Goods

Hazard warning NOT required

DOT Classification	3 Ethyl Alcohol Solution.3.UN1170.II
Marine Pollutant	Not Pollutant
Special Provisions for Transport	None

IMO/IMDG	
Classification	
Proper Shipping Name	Ethyl Alcohol Solution
IMDG Class	3
UN Number	UN1170
Packing Group	II
Marine Pollutant	Not pollutant

ICAO/IATA	
Classification	
Proper Shipping Name	Ethyl Alcohol Solution
IATA Class	3
UN Number	UN1170
Packing Group	II

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15. Regulatory Information

US Regulations	US INVENTORY (TSCA): Listed on inventory
State Regulations:	Pennsylvania RTK: ETHANOL (generic environmental hazard)
	Massachusetts RTK: ETHANOL
	New Jersey: ETHANOL
	California prop. 65. No products were found
Other Regulations:	AUSTRALIAN INVENTORY (AICS): Listed on inventory
	CANADA INVENTORY (DSL): Listed on inventory
	CHINA INVENTORY (IECS): Listed on inventory
	EC INVENTORY (EINECS/ELINCS): Listed on inventory
	JAPAN INVENTORY (ENCS): Listed on inventory
	KOREA INVENTORY (ECL): Listed on inventory
	PHILIPPINE INVENTORY (PICCS): Listed on inventory

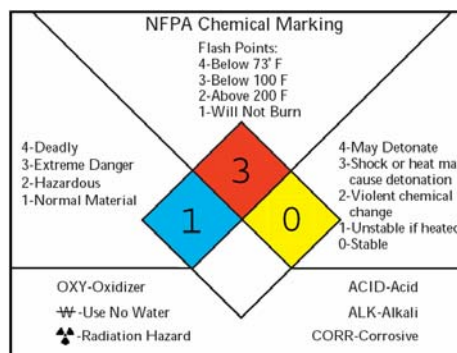
16. Other Information

Label Requirements: WARNING!
 FLAMMABLE LIQUID AND VAPOUR
 MAY CAUSE EYE IRRITATION
 MAY CAUSE RESPIRATORY TRACT IRRITATION
 If swallowed may cause headaches, dizziness, drowsiness, nausea, and may lead to unconsciousness.

Hazardous Material Information System (USA)

HEALTH	1
FIRE HAZARD	3
REACTIVITY	0

National Fire Protection Association (USA)



17. Disclaimer

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The information in the MSDS is based on the present state of knowledge and current legislation. The information provides guidance on health, safety and environmental aspects. For further information about technical performance and application refer to the technical data sheet for this product. Although Nanotec has tried to make it as accurate as possible, we can take no responsibility for its use or misuse.

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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