Material Safety Data Sheet

Unicare Paver Cleaner (Oil)

1. Product and company identification

Product name		**Unicare Paver Cleaner (Oil):**
Material uses	:	Remove oil stains (motor oils and other greasy stains) on pavers and concrete.
Supplier/Manufacturer	:	Techniseal 300, avenue Liberté Candiac, QC, Canada, J5R 6X1 Tel: (514) 523-2110 Toll free: 1-800-465-7325 Fax: (450) 633-3035
Validation date	:	2/15/2010.
Prepared by	:	Atrion Regulatory Services, Inc.
In case of emergency	:	CANUTEC (613) 996-6666

2. Hazards identification

Physical state	:	Liquid. [Paste.]
Color	:	White.
Odor	:	Terpene. Citrus.
Signal word	:	WARNING!
Hazard statements	:	COMBUSTIBLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Precautions	:	Keep away from heat, sparks and flame. Do not breathe vapor or mist. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
OSHA/HCS status	:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	:	Dermal contact. Eye contact. Inhalation.
Potential acute health effects		
Inhalation	:	Irritating to respiratory system.
Ingestion	:	No known significant effects or critical hazards.
Skin	:	Irritating to skin. May cause sensitization by skin contact.
Eyes	:	Irritating to eyes.
Potential chronic health effects		
Chronic effects	:	Contains material that may cause target organ damage, based on animal data. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	No known significant effects or critical hazards.
Target organs	:	Contains material which may cause damage to the following organs: kidneys, bladder, central nervous system (CNS).

Over-exposure signs/symptoms

2. Hazards identification

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion : No specific data.

Skin : Adverse symptoms may include the following:
irritation
redness

Eyes : Adverse symptoms may include the following:
pain or irritation
watering
redness

Medical conditions aggravated by over-exposure : Pre-existing skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

3. Composition/information on ingredients

United States

Name	CAS number	%
Proprietary (particulates) (R)-p-mentha-1,8-diene	Proprietary 5989-27-5	60-100 30-60

Canada

Name	CAS number	%
Proprietary (Particulates) (R)-p-mentha-1,8-diene	 5989-27-5	60-100 30-60

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable : Use dry chemical, CO_2, water spray (fog) or foam.

Not suitable : Do not use water jet.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
Emits acrid smoke and irritating fumes when heated to decomposition.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : CAUTION : Hazard of slipping on spilled product. Product forms slippery surface when combined with water. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods for cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill : CAUTION : Product forms slippery surface when combined with water. Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage : Do not store below the following temperature: 21°C (69.8°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from acids. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Aluminum tanks or containers not acceptable.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
Proprietary (particulates)	**ACGIH TLV (United States).** TWA: 10 mg/m³ 8 hour(s). Form: Inhalable TWA: 3 mg/m³ 8 hour(s). Form: Respirable fraction **OSHA PEL Z3 (United States).** TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction TWA: 15 mg/m³ 8 hour(s). Form: Total dust

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m³	Other	ppm	mg/m³	Other	ppm	mg/m³	Other	Notations
Particulates	US ACGIH	- -	10 3	- -	- -	- -	- -	- -	- -	- -	[a] [b]

Form: [a]Inhalable [b]Respirable fraction

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Advise of the slippery nature of the product.

8. Exposure controls/personal protection

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: If dust is generated and ventilation is inadequate, use NIOSH certified respirator that will protect against dust/mist.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: Chemical splash goggles.

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state : Liquid. [Paste.]

Flash point : Closed cup: 43°C (109.4°F)

Auto-ignition temperature : Not available.

Flammable limits : Lower: 0.7%
Upper: 6.1%

Color : White.

Odor : Terpene. Citrus.

pH : 11.5

Boiling/condensation point : Not available.

Melting/freezing point : Not available.

Density : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Odor threshold : Not available.

Evaporation rate : Not available.

Solubility : Partially soluble in the following materials: cold water and hot water.

$LogK_{ow}$: Not available.

Physical/chemical properties comments : Bulk density: <water

10. Stability and reactivity

Chemical stability : The product is stable.

Instability temperature : >115°C (>239°F)

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials and acids. Polymerization catalysts as aluminum chloride and acidic clays. Ammonia.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
(R)-p-mentha-1,8-diene	LD50 Dermal LD50 Oral	Rabbit Rat	>5 g/kg 4400 mg/kg	- -

Chronic toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitizer

Not available.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
(R)-p-mentha-1,8-diene	-	3	-	-	-	-

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

Not available.

12. Ecological information

Ecotoxicity : Water polluting material. May be harmful to the environment if released in large quantities. This material is very toxic to aquatic life with long lasting effects.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
(R)-p-mentha-1,8-diene	Acute EC50 69600 ug/L Fresh water Acute LC50 702 to 796 ug/L Fresh water	Daphnia - Daphnia pulex - Neonate - <24 hours Fish - Pimephales promelas - 32 to 34 days - 21.8 mm - 0.177 g	48 hours 96 hours

12. Ecological information

Persistence/degradability

Not available.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	NA1993	Compounds, cleaning liquid ((R)-p-mentha-1,8-diene). Marine pollutant ((R)-p-mentha-1,8-diene)	3	III		Marine pollutant **Limited quantity** Yes. **Packaging instruction** **Passenger aircraft** Quantity limitation: 60 to 60 L **Cargo aircraft** Quantity limitation: 220 to 220 L **Special provisions** B1, B52, IB3, T4, TP1, TP29
TDG Classification	UN1993	FLAMMABLE LIQUID, N.O.S. ((R)-p-mentha-1,8-diene)	3	III		**Explosive Limit and Limited Quantity Index** 5 **Passenger Carrying Road or Rail Index** 60 **Special provisions** 16
IMDG Class	UN1993	FLAMMABLE LIQUID, N.O.S. ((R)-p-mentha-1,8-diene). Marine pollutant ((R)-p-mentha-1,8-diene)	3	III		**Emergency schedules (EmS)** F-E, _S-E_ Marine pollutant

14. Transport information

IATA-DGR Class	UN1993	Flammable liquid, n.o.s. ((R)-p-mentha-1,8-diene)	3	III		**Passenger and Cargo Aircraft**Quantity limitation: 60 L Packaging instructions: 309 **Cargo Aircraft Only**Quantity limitation: 220 L Packaging instructions: 310 **Limited Quantities - Passenger Aircraft**Quantity limitation: 10 L Packaging instructions: Y309

PG* : Packing group

15. Regulatory information

United States

HCS Classification : Combustible liquid
Irritating material
Sensitizing material
Target organ effects

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: (R)-p-mentha-1,8-diene
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: (R)-p-mentha-1,8-diene: Fire hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

No listed substance

Canada

15. Regulatory information

WHMIS (Canada) : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
Class D-2B: Material causing other toxic effects (Toxic).
Class E: Corrosive material

Canadian lists

Canadian NPRI : The following components are listed: D-Limonene

CEPA Toxic substances : None of the components are listed.

Canada inventory : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

16. Other information

Label requirements : COMBUSTIBLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

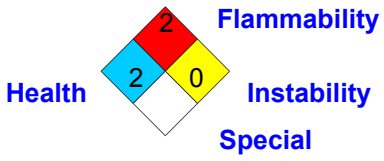
Hazardous Material Information System (U.S.A.) :

Health	*	2
Flammability		2
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



16. Other information

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Date of issue	:	2/15/2010.
Date of previous issue	:	No previous validation
Version	:	1

Indicates information that has changed from previously issued version.

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 suitability 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.