

NAPA® MAC'S BRAKE & BRAKE PARTS
CLEANER
NM4700

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)
Product name	NAPA® MAC'S BRAKE & BRAKE PARTS CLEANER	
Product code	NM4700	

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: aerosol, aerosol

WARNING! CONTAINS CHLORINATED SOLVENTS. CONTENTS UNDER PRESSURE. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. HARMFUL IF INHALED. MAY BE HARMFUL IF SWALLOWED.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage.

Ingestion

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Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing this material may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.). Alcohol consumed before or after exposure may worsen harmful effects.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions), Liver, Kidney, Individuals with preexisting heart disorders maybe more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: redness of the skin, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), temporary changes in mood and behavior, Lack of coordination, confusion, irregular heartbeat, liver damage

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: kidney damage, liver damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: mild effects on color vision

Carcinogenicity

Exposure to perchloroethylene has been shown to cause cancer in laboratory animals. It has been listed as a possible carcinogen by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP).

Reproductive hazard

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No. / Trade Secret No.	Concentration
TETRACHLOROETHYLENE	127-18-4	>=90-<=100%
CARBON DIOXIDE	124-38-9	>=5-<10%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard.

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Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.

Treatment: No information available.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Water spray, Carbon dioxide (CO₂), Dry chemical

Hazardous combustion products

carbon dioxide and carbon monoxide, Chlorine, hydrogen chloride, Phosgene

Precautions for fire-fighting

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification

not applicable

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Scoop into containers.

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Other information

Comply with all applicable federal, state, and local regulations.

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7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Store in a cool, dry, ventilated area. Aluminum equipment should not be used for storage and/or transfer, e.g. pumps, mixers, fittings, storage tanks, etc. Contact with aluminum parts in a pressurizable fluid system may cause violent reactions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

TETRACHLOROETHYLENE		127-18-4
ACGIH	time weighted average	25 ppm
ACGIH	Short term exposure limit	100 ppm
OSHA Z2	time weighted average	100 ppm
OSHA Z2	Ceiling Limit Value:	200 ppm
OSHA Z2	Maximum concentration:	300 ppm
CARBON DIOXIDE		124-38-9
ACGIH	time weighted average	5,000 ppm
ACGIH	Short term exposure limit	30,000 ppm
NIOSH	Recommended exposure limit (REL):	5,000 ppm
NIOSH	Recommended exposure limit (REL):	9,000 mg/m3
NIOSH	Short term exposure limit	30,000 ppm
NIOSH	Short term exposure limit	54,000 mg/m3
OSHA Z1	Permissible exposure limit	5,000 ppm
OSHA Z1	Permissible exposure limit	9,000 mg/m3

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

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Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves (consult your safety equipment supplier). Discard gloves that show tears, pinholes, or signs of wear.

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	aerosol
Form	aerosol
Boiling point/boiling range	250.3 °F / 121.3 °C Calculated Phase Transition Liquid/Gas
Flash point	does not flash
Vapour pressure	24.664 hPa @ 77 °F / 25 °C Calculated Vapor Pressure

10. STABILITY AND REACTIVITY

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Stability

Stable.

Conditions to avoid

Avoid contact with open flame, welding arcs, resistance heaters, etc., which can result in thermal decomposition releasing hydrogen chloride and small amounts of phosgene and chlorine.

Incompatible products

Alkali metals, aluminum, Barium, Strong acids, Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, Chlorine, hydrogen chloride, Phosgene

Hazardous reactions

Product will not undergo hazardous polymerization.

11. TOXICOLOGICAL INFORMATION**Acute oral toxicity**

Acute oral toxicity - : no data available
Product

Acute oral toxicity - Components

TETRACHLOROETHYL : LD 50: 2,629 mg/kg Species: Rat
ENE

Acute inhalation toxicity

Acute inhalation toxicity - : no data available
Product

Acute dermal toxicity

Acute dermal toxicity - : no data available
Product

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Acute dermal toxicity - Components

TETRACHLOROETHYL : LD 50: > 3,228 mg/kg Species: Rabbit
ENE

Acute toxicity (other routes of administration)

Acute toxicity (other : no data available
routes of administration)

12. ECOLOGICAL INFORMATION

Biodegradability

Biodegradability - Product : no data available

Bioaccumulation

Bioaccumulation - Product : no data available

Bioaccumulation - Components

TETRACHLOROETHYL : Species: Bluegill (*Lepomis macrochirus*) Exposure time: 21
ENE d Concentration: 0.00343 mg/l Bioconcentration factor
(BCF): 49 Method: Flow through

Ecotoxicity effects

Toxicity to fish

Toxicity to fish - Product : no data available

Toxicity to fish - Components

TETRACHLOROETHYL : LC 50: 4.73 - 5.27 mg/l
ENE Exposure time: 96 h
Species: Rainbow trout,donaldson trout (*Oncorhynchus mykiss*)
Test Type: flow-through test

LC 50: 9.3 mg/l
Exposure time: 96 h
Species: Danio rerio (zebra fish)
Test Type: flow-through test

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Toxicity to daphnia and other aquatic invertebrates

Toxicity to daphnia and other aquatic invertebrates
- Product : no data available

Toxicity to daphnia and other aquatic invertebrates - Components

TETRACHLOROETHYL ENE : EC 50: 7 - 11 mg/l
Exposure time: 48 h
Species: Water flea (Daphnia magna)
Test Type: static test

Toxicity to algae

Toxicity to algae - Product : no data available

Toxicity to bacteria

Toxicity to bacteria - Product : no data available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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U.S. DOT - ROAD

1950	AEROSOLS	2	MARINE POLLUTANT: (TETRACHLO ROETHYLEN E)
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U.S. DOT - RAIL

1950	Aerosols, non-flammable	2.2	MARINE POLLUTANT: (TETRACHLO ROETHYLEN E)
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U.S. DOT - INLAND WATERWAYS

1950	Aerosols, non-flammable	2.2	MARINE POLLUTANT: (TETRACHLO ROETHYLEN E)
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TRANSPORT CANADA - ROAD

UN	1950	AEROSOLS	2.2
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TRANSPORT CANADA - RAIL

UN	1950	AEROSOLS	2.2
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TRANSPORT CANADA - INLAND WATERWAYS

UN	1950	AEROSOLS	2.2	MARINE POLLUTANT: (TETRACHLO ROETHYLEN E)
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INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1950	AEROSOLS	2.2	MARINE POLLUTANT: (TETRACHLO ROETHYLEN E)
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	ORM-D, CONSUMER COMMODITY	ORM
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	ORM-D, CONSUMER COMMODITY	ORM
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MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	ORM-D, CONSUMER COMMODITY	ORM
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Not dangerous goods

Not dangerous goods

Not dangerous goods

Not dangerous goods

Not dangerous goods

Not dangerous goods

Not dangerous goods

Not dangerous goods

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

WARNING! This product contains a chemical known to the State of California to cause cancer.	TETRACHLOROETHYLENE
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SARA Hazard Classification

SARA 311/312 Classification

Acute Health Hazard Chronic Health Hazard Fire Hazard Sudden Release of Pressure Hazard
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SARA 313 Component(s)

TETRACHLOROETHYLENE	91.78 %
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New Jersey RTK Label Information

TETRACHLOROETHYLENE	127-18-4
CARBON DIOXIDE	124-38-9

Pennsylvania RTK Label Information

TETRACHLOROETHYLENE	127-18-4
CARBON DIOXIDE	124-38-9

Notification status

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Japan. Kashin-Hou Law List	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	y (positive listing)
China. Inventory of Existing Chemical Substances	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment)	y (positive listing)

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Act	
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)
US. Toxic Substances Control Act	y (positive listing)
New Zealand. Composite List of Single Component Substances to be considered for Transfer	y (positive listing)
Switzerland. Consolidated Inventory	y (positive listing)

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302)	108 lbs
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Reportable quantity-Components

TETRACHLOROETHYLENE	127-18-4	100 lbs
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	HMIS	NFPA
Health	2*	2
Flammability	0	0
Physical hazards	0	
Instability		0
Specific Hazard	--	--

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).