SAFETY DATA SHEET

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NAPA® MAC'S NON-CHLOR BRAKE PARTS CLEANER
NM4800

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

Ashland P.O. Box 2219 Columbus, OH 43216	Regulatory Information Number Telephone Emergency telephone number	1-800-325-3751 614-790-3333 1-800-ASHLAND (1-800-274-5263)

Product name NAPA® MAC'S NON-CHLOR BRAKE PARTS CLEANER

Product code NM4800

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: aerosol

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. 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. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE DERMATITIS AND BURNS. HARMFUL IF SWALLOWED. MAY CAUSE BLINDNESS. MAY BE HARMFUL IF INHALED.

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. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage.

Ingestion

Swallowing this material 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 small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, Skin, Upper respiratory tract, lung (for example, asthma-like conditions), Liver, Kidney, Central nervous system, pancreas, Heart, blood-forming system, auditory system, Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias., 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:, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, temporary changes in mood and behavior, loss of appetite, muscle cramps, pain in the abdomen and lower back, Blurred vision, Shortness of breath, Lack of coordination, confusion, irregular heartbeat, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), visual impairment (including blindness), coma

Target Organs

Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans., This material (or a component) shortens the timeof onset or worsens the liver and kidney damage induced by other chemicals., Exposure to lethal concentrations of methanol has been shown to cause damage to organs including liver, kidneys, pancreas, heart, lungs and brain. Although this rarely occurs, survivors of severe intoxication may suffer from permanent neurological damage., Prolonged intentional toluene abuse may lead to damage to many organ systems having effects

on: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Comparable central nervous system effects have not been shown to result from occupational exposure to toluene., Prolonged intentional toluene abuse may lead to hearing loss progressing to deafness. In addition, while noise is known to cause hearing loss in humans, it has been suggested that workers exposed to organic solvents, including toluene, along with noise may suffer greater hearing loss than would be expected from exposure to noise alone., Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, mild, reversible kidney effects, blood abnormalities, liver abnormalities, respiratory tract damage (nose, throat, and airways), central nervous system damage, effects on hearing, central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans:, kidney damage, visual impairment

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain., Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans., 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No. / Trade Secret No.	Concentration
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742-89-8	>=40-<50%
METHANOL	67-56-1	>=30-<40%
TOLUENE	108-88-3	>=5-<10%
ACETONE	67-64-1	>=5-<10%
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, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

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 product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion.

Treatment: No information available.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2), Foam, Dry powder, Water spray

Hazardous combustion products

Aldehydes, carbon dioxide and carbon monoxide, Hydrocarbons, organic compounds

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. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Other information

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

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC		**64742-89-8**
OSHA Z1	time weighted average	500 ppm
ACGIH	time weighted average	300 ppm
OSHA Z1	time weighted average	2,000 mg/m3
ACGIH	time weighted average	1,370 mg/m3
METHANOL		**67-56-1**
ACGIH	time weighted average	200 ppm
ACGIH	Short term exposure limit	250 ppm
NIOSH	Recommended exposure limit (REL):	200 ppm
NIOSH	Recommended exposure limit (REL):	260 mg/m3
NIOSH	Short term exposure limit	250 ppm
NIOSH	Short term exposure limit	325 mg/m3
OSHA Z1	Permissible exposure limit	200 ppm
OSHA Z1	Permissible exposure limit	260 mg/m3
TOLUENE		**108-88-3**
ACGIH	time weighted average	20 ppm
NIOSH	Recommended exposure limit (REL):	100 ppm
NIOSH	Recommended exposure limit (REL):	375 mg/m3
NIOSH	Short term exposure limit	150 ppm
NIOSH	Short term exposure limit	560 mg/m3
OSHA Z2	time weighted average	200 ppm
OSHA Z2	Ceiling Limit Value:	300 ppm
OSHA Z2	Maximum concentration:	500 ppm
ACETONE		**67-64-1**
ACGIH	time weighted average	500 ppm
ACGIH	Short term exposure limit	750 ppm
NIOSH	Recommended exposure	250 ppm

	limit (REL):	
NIOSH	Recommended exposure limit (REL):	590 mg/m3
OSHA Z1	Permissible exposure limit	1,000 ppm
OSHA Z1	Permissible exposure limit	2,400 mg/m3
ACGIH NIC	time weighted average	200 ppm
ACGIH NIC	Short term exposure limit	500 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

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
Flash point	19.9 °F / -6.7 °C
Density	0.8057 g/cm3 @ 60.01 °F / 15.56 °C

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

Heat, flames and sparks.

Incompatible products

Acids, alkalis, Amines, Ammonia, halogens, Lead, peroxides, Reducing agents, sodium, Strong oxidizing agents, Peroxides

Hazardous decomposition products

Aldehydes, carbon dioxide and carbon monoxide, formaldehyde-like, Hydrocarbons, organic compounds

Hazardous reactions

Product will not undergo hazardous polymerization.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

Acute oral toxicity - Product	: no data available

Acute oral toxicity - Components

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	: LD 50: > 8,000 mg/kg Species: Rat
METHANOL	: LD L0: 300 mg/kg Species: Human
TOLUENE	: LD 50: > 5,000 mg/kg Species: Rat
ACETONE	: LD 50: 5,800 mg/kg Species: Rat

Acute inhalation toxicity

Acute inhalation toxicity - Product	: no data available

Acute inhalation toxicity - Components

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	: LC 50: 3400 ppm Exposure time: 4 h Species: Rat
METHANOL	: LC 50: 64000 ppm Exposure time: 4 h Species: Rat
	Remarks: Slightly toxic by inhalation
TOLUENE	: LC 50: 8000 ppm Exposure time: 4 h Species: Rat
ACETONE	: LC 50: > 16000 ppm Exposure time: 4 h Species: Rat

Acute dermal toxicity

Acute dermal toxicity - Product	: no data available

Acute dermal toxicity - Components

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	: LD 50: > 4,000 mg/kg Species: Rat
METHANOL	: LD 50: 12,800 mg/kg Species: Rabbit
TOLUENE	: LD 50: 12,124 mg/kg Species: Rabbit

ACETONE	:	LD 50: > 20,000 mg/kg Species: Rabbit

Acute toxicity (other routes of administration)

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

12. ECOLOGICAL INFORMATION

Biodegradability

Biodegradability - Product	:	no data available

Biodegradability - Components

METHANOL	:	99 % Method: OECD Test Guideline 301D

Bioaccumulation

Bioaccumulation - Product	:	no data available

Bioaccumulation - Components

METHANOL	:	Species: Green algae (Chlorella fusca vacuolata) Exposure time: 24 h Concentration: 0.05 mg/l Bioconcentration factor (BCF): 28,400 Method: Static

TOLUENE	:	Species: Ide, silver or golden orfe (Leuciscus idus) Exposure time: 3 d Concentration: 0.05 mg/l Bioconcentration factor (BCF): 94 Method: Not reported

Ecotoxicity effects

Toxicity to fish

Toxicity to fish - Product	:	no data available

Toxicity to fish - Components

METHANOL	:	LC 50: 18,000 - 20,000 mg/l Exposure time: 96 h Species: Rainbow trout,donaldson trout (Oncorhynchus mykiss) Test Type: static test

TOLUENE	:	LC 50: 5.8 mg/l Exposure time: 96 h Species: Rainbow trout,donaldson trout (Oncorhynchus mykiss) Test Type: Renewal
		LC 50: 12.6 mg/l Exposure time: 96 h Species: Fathead minnow (Pimephales promelas) Test Type: static test

ACETONE	:	LC 50: 4,740 - 6,330 mg/l Exposure time: 96 h Species: Rainbow trout,donaldson trout (Oncorhynchus mykiss) Test Type: static test
		LC 50: 8,733 - 9,482 mg/l Exposure time: 96 h Species: Fathead minnow (Pimephales promelas) Test Type: flow-through test

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

METHANOL	:	EC 50: > 10,000 mg/l Exposure time: 48 h Species: Water flea (Daphnia magna) Test Type: static test

TOLUENE	:	EC 50: 6 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.
U.S. DOT - ROAD					
1950	AEROSOLES	2			
U.S. DOT - RAIL					
1950	Aerosols, flammable	2.1			
U.S. DOT - INLAND WATERWAYS					
1950	Aerosols, flammable	2.1			
TRANSPORT CANADA - ROAD					
UN 1950	AEROSOLS	2.1			
TRANSPORT CANADA - RAIL					
UN 1950	AEROSOLS	2.1			

TRANSPORT CANADA - INLAND WATERWAYS

UN	1950	AEROSOLS	2.1	

INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1950	AEROSOLS	2.1	MARINE POLLUTANT: (ALIPHATIC PETROLEUM NAPHTHA)

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	ORM-D, CONSUMER COMMODITY	ORM

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	ORM-D, CONSUMER COMMODITY	ORM

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	ORM-D, CONSUMER COMMODITY	ORM

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

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.	BENZENE ETHYL BENZENE

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.	METHANOL TOLUENE

	BENZENE

SARA Hazard Classification
SARA 311/312 Classification
Acute Health Hazard
Fire Hazard
Sudden Release of Pressure Hazard

SARA 313 Component(s)

METHANOL	34.84 %
TOLUENE	9.42 %

New Jersey RTK Label Information

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742-89-8
METHANOL	67-56-1
TOLUENE	108-88-3
ACETONE	67-64-1
CARBON DIOXIDE	124-38-9

Pennsylvania RTK Label Information

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742-89-8
METHANOL	67-56-1
TOLUENE	108-88-3
ACETONE	67-64-1
CARBON DIOXIDE	124-38-9
BENZENE	71-43-2

Notification status

US. Toxic Substances Control Act	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	y (positive listing)
Japan. Kashin-Hou Law List	y (positive listing)
Korea. Toxic Chemical Control Law (TCCL) 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)

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302)	10612 lbs

Reportable quantity-Components

TOLUENE	108-88-3	1000 lbs

	HMIS	NFPA
Health	2	2
Flammability	4	4
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).