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

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION 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	1-800-ASHLAND (1-800-274-5263)

Product name	NAPA® MAC'S NON-CHLOR BRAKE PARTS CLEANER
Product code	NM4800
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: aerosol

WARNING! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF INHALED. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. MAY BE HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS.

Potential Health Effects

Routes of exposure

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 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 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, 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., Upper respiratory tract

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), runny nose, 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, Weakness, temporary changes in mood and behavior, loss of appetite, muscle cramps, pain in the abdomen and lower back, Lack of coordination, confusion, irregular heartbeat, Blurred vision, Shortness of breath, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), high blood sugar, narcosis (dazed or sluggish feeling), visual impairment (including blindness), coma

Target Organs

This material (or a component) shortens the time of 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, effects on hearing, liver abnormalities, respiratory tract damage (nose, throat, and airways), central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans:, visual impairment, kidney damage

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

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., 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., 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
n-HEPTANE	142-82-5	>=40-<50%

Components	CAS-No.	Concentration
METHANOL	67-56-1	>=30-<40%
TOLUENE	108-88-3	>=10-<15%
ACETONE	67-64-1	>=5-<10%
CARBON DIOXIDE	124-38-9	>=1.5-<5%

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

Suitable extinguishing media

Carbon dioxide (CO2), Dry chemical

Hazardous combustion products

carbon dioxide and carbon monoxide, Hydrocarbons

Precautions for fire-fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. 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 liquid with water used for cooling purposes.

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

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Other information

Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapours/mists with a water spray jet.

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. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Storage

Store in a cool, dry, ventilated area, away from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

n-HEPTANE	**142-82-5**	
ACGIH	time weighted average	400 ppm
ACGIH	Short term exposure limit	500 ppm
NIOSH	Recommended exposure limit (REL):	85 ppm
NIOSH	Recommended exposure limit (REL):	350 mg/m3
NIOSH	Ceiling Limit Value and Time Period (if specified):	440 ppm
NIOSH	Ceiling Limit Value and Time Period (if specified):	1,800 mg/m3
OSHA Z1	Permissible exposure limit	500 ppm
OSHA Z1	Permissible exposure limit	2,000 mg/m3
OSHA Z1A	time weighted average	400 ppm

OSHA Z1A	time weighted average	1,600 mg/m3
OSHA Z1A	Short term exposure limit	500 ppm
OSHA Z1A	Short term exposure limit	2,000 mg/m3
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	400 ppm
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	1,600 mg/m3
US CA OEL	Short term exposure limit	500 ppm
US CA OEL	Short term exposure limit	2,000 mg/m3
ACGIH	time weighted average	400 ppm
ACGIH	Short term exposure limit	500 ppm

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 limit (REL):	250 ppm
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

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).

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be persmissible under certain circumstancs 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	No data
Colour	No data
Odour	No data
Boiling point/boiling range	No data
pH	No data
Flash point	No data
Evaporation rate	No data
Explosion limits	No data
Vapour pressure	No data
Vapour density	No data
Density	0.8057 g/cm3 @ 60.01 °F / 15.56 °C
	No data
Solubility	No data
Partition coefficient: n-octanol/water	No data
log Pow	no data available
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

Avoid heat, open flame, and prolonged storage at elevated temperatures.

Incompatible products

acids, alkalis, hypochlorites, peroxides, reducing agents, sodium, strong bases, Zinc, strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

n-HEPTANE	LD 50 Rat: > 15,000 mg/kg
METHANOL	LD L0 Human: 300 mg/kg
TOLUENE	LD 50 Rat: 2,600 - 7,500 mg/kg
ACETONE	LD 50 Rat: 5,800 mg/kg
CARBON DIOXIDE	no data available

Acute inhalation toxicity

n-HEPTANE	LC 50 Rat: 103 g/m3 , 4 h
METHANOL	LC 50 Rat: 64000 ppm, 4 h
TOLUENE	LC 50 Rat: 8000 ppm, 4 h
ACETONE	LC 50 Rat: > 16000 ppm, 4 h
CARBON DIOXIDE	no data available

Acute dermal toxicity

n-HEPTANE	LD 50 Rabbit: > 2,001 mg/kg
METHANOL	LD 50 Rabbit: 12,800 mg/kg
TOLUENE	LD 50 Rabbit: 12,124 mg/kg

ACETONE	LD 50 Rabbit: > 20,000 mg/kg
CARBON DIOXIDE	no data available

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Acute and Prolonged Toxicity to Fish
No data
Acute Toxicity to Aquatic Invertebrates
No data

Environmental fate and pathways
No data

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

IMDG:
UN1950, AEROSOLS 2.1,
IATA_P:
UN1950, Aerosols, flammable 2.1,
IATA_C:
UN1950, Aerosols, flammable 2.1,
CFR_ROAD:
UN1950, Aerosols 2.1,
CFR_RAIL:
UN1950, Aerosols 2.1,
CFR_INWTR:
UN1950, Aerosols 2.1,

Dangerous goods descriptions (if indicated above) may not reflect package size, 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 in the State of California to cause cancer.
BENZENE

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

SARA Hazard Classification Acute Health Hazard

SARA 313 Component(s)

METHANOL	67-56-1	35.9972%
TOLUENE	108-88-3	11.187%

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302)	8938 lbs

Reportable quantity - Components

n-HEPTANE	142-82-5	none
METHANOL	67-56-1	5000 lbs
TOLUENE	108-88-3	1000 lbs
ACETONE	67-64-1	5000 lbs
CARBON DIOXIDE	124-38-9	none

	Health	Flammability	Reactivity	Other
HMIS	2	3	0	
NFPA	2	3	0	

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).