

CP 82B

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

Company

Cumberland Products Inc.
50 Commerce Parkway
Hodgenville, KY 42748
1-800-223-1918

Emergency Telephone Number: 1-800-424-9300 CHEMTREC

2. HAZARDS IDENTIFICATION**Emergency Overview** Appearance:

liquid, water clear

CAUTION! PEROXIDE FORMER MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. HARMFUL IF INHALED. MAY BE HARMFUL IF SWALLOWED. MAY BE HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. MAY CAUSE EYE IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

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. Additional symptoms of eye exposure may include: blurred vision.

Skin contact

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, burns and other skin damage. Additional symptoms of skin contact may include: skin blistering. Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

Ingestion

This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). 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.). Breathing air containing n-butyl acetate, which results from its use in aerosol applications, may cause delayed lung injury.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), liver, kidney, blood-forming system, immune system, auditory system, eye. Individuals with preexisting heart disorders may be more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

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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 face and neck, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), lung irritation, 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 behavior, weakness, respiratory depression (slowing of the breathing rate), shortness of breath, loss of coordination, confusion, difficult breathing, bloody urine, blood abnormalities (breakage of red blood cells), narcosis (dazed or sluggish feeling), kidney damage, liver damage, respiratory failure, coma, and death

Target Organs

Acute lethal exposure to ethylene glycol monobutyl ether in animal studies has resulted in congestion of organs including kidney, spleen, and lung. This material (or a component) has been shown to lower activity of certain immune system cells in experimental animals. The significance of this effect with respect to human health is uncertain. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects, blood abnormalities, liver abnormalities, cataracts, nasal damage, kidney damage, effects on hearing. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: liver abnormalities

Carcinogenicity

Ethylbenzene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. The International Agency for Research on Cancer (IARC) has classified ethylbenzene as a possible human carcinogen. Ethylene glycol monobutyl ether has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain.

Reproductive hazard

This material (or a component) has been shown to cause birth defects 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., Cumene (isopropylbenzene) did not cause harm to the unborn pup in laboratory animal studies, even at levels which were harmful to the pregnant animal., When tested separately, a minor component of propylene glycol monomethyl ether acetate (2-methoxy-1-propyl acetate) caused birth defects in experimental animals in one study but not in another. However, the commercial grade acetate containing the minor component did not cause birth defects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	>=40-<50%
N-BUTYL ACETATE	123-86-4	>=30-<40%
MINERAL SPIRITS ODORLESS	8052-41-3	>=5-<10%
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	112-07-2	>=1.5-<5%
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	>=1.5-<5%
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742-89-8	>=1.5-<5%
TRIMETHYLBENZENE 1,2,4-	95-63-6	>=1.5-<5%

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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 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. Inhalation or ingestion of high levels of this material (or a component) may cause a hemolytic reaction. Complications of acute intravascular hemolysis include anemia, leukocytosis, fever, hemoglobinuria, jaundice, renal insufficiency, and sometimes disturbances in liver function.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Water mist, Carbon dioxide (CO₂), Dry chemical

Hazardous combustion products

May form: carbon dioxide and carbon monoxide, various hydrocarbons

Precautions for fire-fighting

If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Forms peroxides of unknown stability. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into

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hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. 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. 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. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks.

Environmental precautions

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

Methods for cleaning up

Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood.

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. Emergency eyewash fountains and safety showers should be available in the immediate vicinity of potential exposure. 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. Hydrocarbon solvents are basically nonconductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Warning: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

Storage

Possible peroxide former. Do not allow to evaporate to near dryness; store away

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from light and heat. Store under nitrogen after opening. Periodically test product stored for long periods for peroxide formation. Addition of water or appropriate reducing materials will lessen peroxide formation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

N-BUTYL ACETATE	1 2 3 - 8 6 - 4	
ACGIH	time weighted average	150 ppm
ACGIH	Short term exposure limit	200 ppm
NIOSH	Recommended exposure limit (REL):	150 ppm
NIOSH	Recommended exposure limit (REL):	710 mg/m3
NIOSH	Short term exposure limit	200 ppm
NIOSH	Short term exposure limit	950 mg/m3
OSHA Z1	Permissible exposure limit	150 ppm
OSHA Z1	Permissible exposure limit	710 mg/m3
OSHAZ1A	time weighted average	150 ppm
OSHAZ1A	time weighted average	710 mg/m3
OSHAZ1A	Short term exposure limit	200 ppm
OSHAZ1A	Short term exposure limit	950 mg/m3
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	150 ppm
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	710 mg/m3
US CA OEL	Short term exposure limit	200 ppm
US CA OEL	Short term exposure limit	950 mg/m3
MINERAL SPIRITS ODORLESS	8052-41-3	
ACGIH	time weighted average	100 ppm
NIOSH	Recommended exposure limit (REL):	350 mg/m3
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	2900 mg/m3
OSHAZ1A	time weighted average	100 ppm
OSHAZ1A	time weighted average	525 mg/m3
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	100 ppm
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	525 mg/m3
ETHYLENE GLYCOL MONOBUTYL ETHER	108-88-3	
ACGIH	time weighted average	20 ppm
NIOSH	Recommended exposure limit (REL):	5 ppm
NIOSH	Recommended exposure limit (REL):	24 mg/m3
OSHA Z1	Permissible exposure limit	500 ppm
OSHA Z1	Permissible exposure limit	50 ppm
OSHA Z2	time weighted average	240 ppm
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	108-88-3	
OSHAZ1A	time weighted average	500 ppm
ACGIH	time weighted average	300 ppm
ACGIH	time weighted average	1370 mg/m3
TRIMETHYLBENZENE 1,2,4-	95-63-6	
NIOSH	Recommended exposure limit (REL):	25 ppm
NIOSH	Recommended exposure limit (REL):	125 mg/m3
ACGIH	time weighted average	25 ppm
OSHAZ1A	time weighted average	25 ppm
OSHAZ1A	time weighted average	125 mg/m3
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	25 ppm
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	125 mg/m3

CP 82B**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 TLV(s).

Eye protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin and body protection

To prevent repeated or prolonged skin contact, wear impervious clothing and boots. Wear resistant gloves such as: Neoprene or Nitrile rubber.

Respiratory protection

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	no data
Color	water clear
Odor	hydrocarbon-like
Boiling point/boiling range	No data
pH	No data
Flash point	50 °F / 10 °C, Tag closed cup
Evaporation rate	1 (Ethyl Ether)
Explosion limits	No data
* Vapor pressure (mm of Hg) @ 68 degrees	7.3738
Vapor density	(>) 1 (AIR=1)
Density	0.908 g/cm ³ @ 68.00 °F / 20.00 °C 7.54 lb/gal @ 68.00 °F / 20.00 °C
* Actual and Regulatory V.O.C.	7.56 lbs/gal / 903.72 g/L
Solubility	no data
Partition coefficient: n- Octanol/water	no data
log Pow	no data available
Autoignition temperature	no data

[NOTE: (*) see footnote on last page]

10. STABILITY AND REACTIVITY**Stability**

Stable.

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Avoid contact with:

Incompatible products

Avoid contact with: acids, alkalis, nitrates, strong oxidizing agents

Hazardous decomposition products

May form: carbon dioxide and carbon monoxide, various hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION**Acute oral toxicity**

PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LD 50 Rat: 8,532 mg/kg
N-BUTYL ACETATE	LD 50 Rat: 10.8 g/kg
MINERAL SPIRITS ODORLESS	LD 50 Rat: > 5 g/kg
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	LD 50 Guinea pig: 1,200 mg/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LD 50 Rat: > 5,600 mg/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	LD 50 Rat: > 8,000 mg/kg
TRIMIETHYLBENZENE 1,2,4-	LD 50 Rat: 6 g/kg

Acute inhalation toxicity

PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LC 50 Rat: > 5344 ppm, 4 h
N-BUTYL ACETATE	LC 50 Wistar rat: 160 mg/l, 4 h
MINERAL SPIRITS ODORLESS	no data available
ETHYLENE GLYCOL MONOBUTYL ETHER	LC 50 Guinea pig: > 633 ppm, 1 h
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LC 50 Rat: > 10,200 mg/m ³ , 4 h
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	LC 50 Rat: 3400 ppm, 4 h
TRIIMETHYLBENZENE 1,2,4-	LC 50 Rat: 18 g/m ³ , 4 h LC 50 Rat: > 2,000 mg/l, 48 h

Acute dermal toxicity

PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LD 50 Rabbit: > 5,000 mg/kg
N-BUTYL ACETATE	LD 50 Rabbit: 17,600 mg/kg
MINERAL SPIRITS ODORLESS	LD 50 Rabbit: > 3 g/kg
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	LD 50 Rabbit: > 1,500 mg/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LD 50 Rabbit: > 4,000 mg/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	LD 50 Rat: > 4,000 mg/kg
TRIMIETHYLBENZENE 1,2,4-	LD 50 Rabbit: > 3,160 mg/kg

12. ECOLOGICAL INFORMATION**Aquatic toxicity****Acute and Prolonged Toxicity to Fish**

No data

Acute Toxicity to Aquatic Invertebrates

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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. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the

requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

14. TRANSPORT INFORMATION**IMDG:**

UN1993, FLAMMABLE LIQUID, N.O.S. (N-BUTYL ACETATE, SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC) 3, II

IATA_P:

UN1993, Flammable liquid, n.o.s. (N-BUTYL ACETATE, SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC) 3, II

IATA_C:

UN1993, Flammable liquid, n.o.s. (N-BUTYL ACETATE, SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC) 3, II

CFR_ROAD:

UN1993, Flammable liquids, n.o.s. (N-BUTYL ACETATE, SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC) 3, II

CFR_RAIL:

UN1993, Flammable liquids, n.o.s. (N-BUTYL ACETATE, SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC) 3, II

CFR_INWTR:

UN1993, Flammable liquids, n.o.s. (N-BUTYL ACETATE, SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC) 3, II

IMDG_ROAD:

UN1993, FLAMMABLE LIQUID, N.O.S. (N-BUTYL ACETATE, SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC) 3, II

IMDG_RAIL:

UN1993, FLAMMABLE LIQUID, N.O.S. (N-BUTYL ACETATE, SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC) 3, II

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**

MATERIAL SAFETY DATA SHEET

Page: 1 of 9
 Revision Date: 09/30/2009
 Print Date: 3/30/2010
 MSDS Number: R0392140
 Version: 1.0

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WARNING! This product contains a chemical known in the State of California to cause cancer.

NAPHTHALENE
 ETHYLBENZENE
 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 Fire Hazard
 Acute Health Hazard

SARA 313 Component(s)

Reportable quantity - Components

PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	none
N-BUTYL ACETATE	123-86-4	5000 lbs
MINERAL SPIRITS ODORLESS	8052-41-3	none
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	111-76-2	none
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	none
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742-89-8	none
TRIMETHYLBENZENE 1,2,4-	95-63-6	none

	Health	Flammability	Reactivity	Other
HMIS	1*	3	0	
NFPA	1	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.

* indicates calculations were done in house using supplier provided spreadsheet