



SAFETY DATA SHEET
MS THINNER

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Revision Date: 5/5/2010
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Inkcups Now	Telephone	978-646-8980
20 Locust St	Fax	978-646-8981
Danvers, MA 01923	Emergency telephone	Chemtrec 800-424-9300

Product name	MS THINNER
Product code	No data
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid,, white

WARNING! COMBUSTIBLE LIQUID AND VAPOR. PEROXIDE FORMER MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. HARMFUL IF INHALED. MAY BE HARMFUL IF SWALLOWED 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. 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, and drying and cracking of skin, burns and other skin damage. Additional symptoms of skin contact may include: Blistering Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

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 of vapor or mist is possible. Breathing this material 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: respiratory tract, skin, lung (for example, asthma-like conditions), liver, kidney, central nervous system, blood-forming system, male reproductive system, immune system, auditory system, eye, 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, mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), lung irritation, discomfort in the chest, 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, effects on memory, respiratory depression (slowing of the breathing rate), shortness of breath, loss of coordination, confusion, irregular heartbeat, Bloody urine, blood abnormalities (breakage of red blood cells), narcosis (dazed or sluggish feeling), kidney damage, liver damage, respiratory failure, coma

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: blood abnormalities, cataracts, kidney damage, nasal damage, testis damage, liver damage, effects on hearing, Overexposure to this material (or its components) has been suggested as a cause of the

following effects in humans: central nervous system effects, liver abnormalities, effects on hearing

Carcinogenicity

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) may be harmful to the human fetus based on positive test results with laboratory animals., Cumene (isopropylbenzene) did not cause harm to the unborn pup in laboratory animal studies, even at levels which were harmful to the pregnant animal.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
ETHYLENE GLYCOL	112-07-2	>=40-<50%
MONOBUTYL ETHER ACETATE		
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	>=20-<30%
TRIMETHYLBENZENE 1,2,4-	95-63-6	>=15-<20%
PROPYLENE GLYCOL	108-65-6	>=5-<10%
MONOMETHYL ETHER ACETATE		
TRIMETHYLBENZENE, 1,3,5-	108-67-8	>=1.5-<5%
CUMENE	98-82-8	>=1-<1.5%
XYLENE	1330-20-7	>=1-<1.5%

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 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. 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.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, Carbon dioxide (CO₂)

Hazardous combustion products

carbon dioxide and carbon monoxide, 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. 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 liquid with water used for cooling purposes.

Flammability Class for Flammable Liquids
Combustible Liquid Class II

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

Do not store near extreme heat, open flame, or sources of ignition. Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2

ACGIH	time weighted average	20 ppm
NIOSH	Recommended exposure limit (REL):	5 ppm
NIOSH	Recommended exposure limit (REL):	33 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
OSHA Z1A	time weighted average	25 ppm
OSHA Z1A	time weighted average	125 mg/m3
US CA OEL	Time Weighted Average (TWA)	25 ppm
US CA OEL	Permissible Exposure Limit (PEL):	125 mg/m3
US CA OEL	Time Weighted Average (TWA)	125 mg/m3
US CA OEL	Permissible Exposure Limit (PEL):	125 mg/m3

TRIMETHYLBENZENE, 1,3,5- 108-67-8

NIOSH	Recommended exposure limit (REL):	25 ppm
NIOSH	Recommended exposure limit (REL):	125 mg/m3
ACGIH	time weighted average	25 ppm
OSHA Z1A	time weighted average	25 ppm
OSHA Z1A	time weighted average	125 mg/m3

CUMENE 98-82-8

ACGIH	time weighted average	50 ppm
NIOSH	Recommended exposure limit (REL):	50 ppm
NIOSH	Recommended exposure limit (REL):	245 mg/m3
OSHA Z1	Permissible exposure limit	50 ppm
OSHA Z1	Permissible exposure limit	245 mg/m3

XYLENE 1330-20-7

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ACGIH	time weighted average	100 ppm
ACGIH	Short term exposure limit	150 ppm
OSHA Z1	Permissible exposure limit	100 ppm
OSHA Z1	Permissible exposure limit	435 mg/m ³
NIOSH	Recommended exposure limit (REL):	100 ppm
NIOSH	Recommended exposure limit (REL):	435 mg/m ³
NIOSH	Short term exposure limit	150 ppm
NIOSH	Short term exposure limit	655 mg/m ³

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.

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	liquid
Form	No data
Colour	white
Odour	hydrocarbon-like
Boiling point/boilingrange	140.00 °C / 284 °F@ 1,013.33 hPa
pH	No data
Flash point	106 °F / 41 °C, Tag closed cup
Evaporation rate	1 (Ethyl Ether)
Explosion limits	0.9 %(V) 8.5 %(V)
Vapour pressure	4.93 hPa @ 68 °F / 20 °C
Vapour density	(>) 1 (AIR=1)
Density	0.908 g/cm ³ @ 68.00 °F / 20.00 °C 7.56 lb/gal @ 68.00 °F / 20.00 °C
Solubility	No data
Partition coefficient: n-octanol/water	No data
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability

Stable, however, forms peroxides of unknown stability.

Conditions to avoid

heat

Incompatible products

Nitric acid, sulphuric acid, strong acids, strong alkalis, strong oxidizing agents, strong oxidizing agents

Hazardous decomposition products

aldehydes, carbon dioxide and carbon monoxide, ketones, Organic acids, hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	LD 50 Rat: 2,400 mg/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LD 50 Rat: > 5,600 mg/kg
TRIMETHYLBENZENE 1,2,4-	LD 50 Rat: 6 g/kg
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LD 50 Rat: 8,532 mg/kg
TRIMETHYLBENZENE, 1,3,5-	LD 50 Rat: > 5,000 mg/kg
CUMENE	LD 50 Rat: 1,400 mg/kg
XYLENE	LD 50 Rat: 4,300 mg/kg

Acute inhalation toxicity

ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	LC 50 Rat: > 450 ppm, 4 h
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LC 50 Rat: > 10,200 mg/m ³ , 4 h
TRIMETHYLBENZENE 1,2,4-	LC 50 Rat: 18 g/m ³ , 4 h
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LC 50 Rat: > 5344 ppm, 4 h
CUMENE	LC 50 Rat: 8000 ppm,

Acute dermal toxicity

ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE LD 50 Rabbit: 1,500 mg/kg

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC LD 50 Rabbit: > 4,000 mg/kg

PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE LD 50 Rabbit: > 5,000 mg/kg

CUMENE LD 50 Rabbit: 3.15 g/kg

XYLENE LD 50 Rabbit: > 2,000 mg/kg

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. 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. (AROMATIC PETROLEUM NAPHTHA,) 3, III

IATA_P:

UN1993, Flammable liquid, n.o.s. (AROMATIC PETROLEUM NAPHTHA,) 3, III

IATA_C:

UN1993, Flammable liquid, n.o.s. (AROMATIC PETROLEUM NAPHTHA,) 3, III

CFR_ROAD:

UN1993, Flammable liquids, n.o.s. (AROMATIC PETROLEUM NAPHTHA,) 3, III

CFR_RAIL:

UN1993, Flammable liquids, n.o.s. (AROMATIC PETROLEUM NAPHTHA,) 3, III

CFR_INWTR:

UN1993, Flammable liquids, n.o.s. (AROMATIC PETROLEUM NAPHTHA,) 3, III

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.

ETHYL BENZENE

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

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Acute Health Hazard

SARA 313 Component(s)

ETHYLENE GLYCOL	112-07-2	46.6484%
MONOBUTYL ETHER ACETATE		
TRIMETHYLBENZENE	95-63-6	17.2861%
1,2,4- CUMENE	98-82-8	1.4405%
XYLENE	1330-20-7	1.4405%

	Health	Flammability	Reactivity	Other
HMIS	1*	2	0	
NFPA	1	2	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.