



Monarch Oil (Kitchener) Limited

P.O. BOX 653 808 VICTORIA ST. NORTH, KITCHENER, ONT. N2G 4B6 PHONE (519) 743-8241 TOLL FREE 1-800-268-OILS
FAX (519) 743-9802

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Date Prepared: 08/18/04
Date Printed: 08/04/06
MSDS No: 999.0013253-012.009

#1 INK REMOVER SOLVENT

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

AC320

Material Identity

Product Name: INK REMOVER

General or Generic ID: SOLVENT BLEND

Company

Ashland Inc.
Covington, KY

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)
24 hours everyday
Regulatory Information Number:
1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by volume)
XYLENE	1330-20-7	65.0- 65.0
ETHYL ALCOHOL	64-17-5	24.0- 28.0
ACETONE	67-64-1	3.0- 7.0
WATER	7732-18-5	1.0- 3.7
METHYL ALCOHOL	67-56-1	1.1- 1.1
ETHYLBENZENE	100-41-4	12.0- 12.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Additional symptoms of eye exposure may include: blurred vision.

Skin

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: skin blistering. Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

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Swallowing

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 of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure

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, mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), tight feeling 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, leg cramps, involuntary eye movement, pain in the abdomen and lower back, respiratory depression (slowing of the breathing rate), blurred vision, shortness of breath, loss of coordination, confusion, irregular heartbeat, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), high blood sugar, narcosis (dazed or sluggish feeling), anesthesia, visual impairment (including blindness), respiratory failure, coma, and death.

Target Organ Effects

This product contains ethanol. Alcoholic beverage consumption has been associated with brain damage, heart damage, and pancreatitis in humans. The relevance of these findings to ethanol exposure in industrial environments is uncertain. 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. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: anemia, spleen damage, pancreatic damage, eye damage, kidney damage, liver damage, central nervous system damage, brain damage, effects on hearing,

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testis damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: central nervous system effects, cardiac abnormalities, liver abnormalities, visual impairment, eye damage, liver damage.

Developmental Information

This material (or a component) has been shown to cause birth defects in laboratory animal studies. The relevance of these findings to humans is uncertain. 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. This product contains ethanol. Alcoholic beverage consumption has been associated with birth defects in humans. The relevance of this finding to ethanol exposure in industrial environments is uncertain.

Cancer Information

This product contains ethanol. The International Agency for Research on Cancer (IARC) has determined that exposure to ethanol through chronic human consumption of alcoholic beverages can cause cancer. The relevance of this finding to ethanol exposure in industrial environments is uncertain. 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.

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

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.

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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.

Swallowing

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.

Note to Physicians

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. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol, diethylene glycol and methanol poisoning. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion. 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

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system, pancreas, heart, spleen, male reproductive system, auditory system, eye, 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 may be more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

S. FIRE FIGHTING MEASURES

Flash Point

< -1.0 P (-18.3 C) FCC

Explosive Limit

(for component) Lower 1.0 Upper .0 %

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazards

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.

Extinguishing Media

regular foam (such as AFFF), carbon dioxide, dry chemical.

Fire Fighting Instructions

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

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NFPA Rating

Not determined

6. ACCIDENTAL RELEASE MEASURES

Small Spill

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

Large Spill

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. 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.

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. Emergency eyewash fountains and safety showers should be available in the immediate vicinity of potential exposure. 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"

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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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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 Protection

Wear impervious gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections

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

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Component

XYLENE (1330-20-7)

OSHA PEL 100.000 ppm - TWA

OSHA VPPEL 100.000 ppm - TWA

OSHA VPPEL 150.000 ppm - STEL

ACGIH TLV 100.000 ppm - TWA

ACGIH TLV 150.000 ppm - STEL

ETHYL ALCOHOL (64-17-5)

OSHA PEL 1000.000 ppm - TWA

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OSHA PEL 1000.000 ppm - TWA
ACGIH TLV 1000.000 ppm - TWA

ACETONE (67-64-1)

OSHA PEL 1000.000 ppm - TWA
OSHA PEL 750.000 ppm - TWA
OSHA PEL 1000.000 ppm - STEL
ACGIH TLV 500.000 ppm - TWA
ACGIH TLV 750.000 ppm - STEL

WATER (7732-18-5)

No exposure limits established

METHYL ALCOHOL (67-56-1)

OSHA PEL 200.000 ppm - TWA
OSHA PEL 200.000 ppm - TWA (Skin)
OSHA PEL 250.000 ppm - STEL (Skin)
ACGIH TLV 200.000 ppm - TWA (Skin)
ACGIH TLV 250.000 ppm - STEL (Skin)

ETHYLBENZENE (100-41-4)

OSHA PEL 100.000 ppm - TWA
OSHA PEL 100.000 ppm - TWA
OSHA PEL 125.000 ppm - STEL
ACGIH TLV 100.000 ppm - TWA
ACGIH TLV 125.000 ppm - STEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for component) 133.0 F (56.1 C) @ 760 mmHg

Vapor Pressure

(for component) 185.000 mmHg

Specific Vapor Density

> 1.000 @ AIR=1

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Specific Gravity

.829 - .863 @ 68.00 F

Liquid Density

7.050 lbs/gal @ 68.00 F

.846 kg/l @ 20.00 C

Percent Volatiles

100.0 %

Evaporation Rate

SLOWER THAN ETHYL ETHER

Appearance

No data

State

LIQUID

Physical Form

HOMOGENEOUS SOLUTION

Color

No data

Odor

No data

pH

Not applicable

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

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Chemical Stability

Stable.

Incompatibility

Avoid contact with: acids, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

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 Company, IC&S Environmental Services Group at 800-531-7106.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

COMPOUNDS, CLEANING, LIQUID, 3, NA1993, II

Container/Mode:

55 GAL DRUM/TRUCK PACKAGE

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NOS Component:
 ETHYL ALCOHOL
 XYLENE

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs) Component

150	XYLENES (O-, M-, P- ISOMERS)
7878	ETHYLBENZENE

Other Transportation Information

The Transport Information may vary with the container and mode of shipment.

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a)

Component	RQ (lbs)
XYLENES (O-, M-, P- ISOMERS)	100
ACETONE	5000
METHYL ALCOHOL	5000
ETHYLBENZENE	1000

SARA 302 Components - 40 CFR 355 Appendix A
 None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire(X) Reactive() Sudden
 Release of Pressure()

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number	§
XYLENE (MIXED ISOMERS)	1330-20-7	65.00
METHANOL	67-56-1	1.11
ETHYLBENZENE	100-41-4	13.00

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OSHA Process Safety Management 29 CFR 1910
None listed

EPA Accidental Release Prevention 40 CFR 68
None listed

International Regulations
Inventory Status
Not determined

State and Local Regulations

California Proposition 65

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer.

BENZENE

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause reproductive harm.

BENZENE

TOLUENE

New Jersey RTK Label Information

XYLENES	1330-20-7
ETHYL ALCOHOL	64-17-5
ACETONE	67-64-1
METHYL ALCOHOL	67-56-1
ETHYL BENZENE	100-41-4

Pennsylvania RTK Label Information

BENZENE, DIMETHYL-	1330-20-7
ETHANOL	64-17-5
2-PROPANONE	67-64-1
METHANOL	67-56-1
BENZENE, ETHYL-	100-41-4

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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.

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