

Material Safety Data Sheet

Manufacturer
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Identity (Trade Name As Used Label)

Black Seal

Date Prepared

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Prepared by

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Note: Blank spaces not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION 1. Material Identification And Information

COMPONENTS— Chemical Name & Common Names (Hazardous Components 1% or greater; Carcinogens 0.1% or greater)	%	OSHA PEL	ACGIH TLV	Other Limits Recommended
Toluene (CAS No.108-88-8)	5~10	200ppm (8-hour)	100ppm	150ppm(STEL)
Xylene (1330-20-7)	1~5	100ppm	100ppm	150ppm(STEL)
Isobutyl acetate (110-19-0)	1~5	150ppm	150ppm	None
n-Butyl acetate (123-86-4)	1~5	150ppm	150ppm	200ppm(STEL)
Ethyl acetate (141-78-6)	1~5	400ppm	400ppm	None
2-Butoxyethanol (111-76-2)	1~5	50ppm	25ppm	None
Acetone (67-64-1)	1~5	1000ppm	750ppm	1000ppm(STEL)
Methyl isobutyl ketone; Hexone (108-10-1)	1~5	100ppm	50ppm	75ppm(STEL)
Cyclohexanone (108-94-1)	1~5	50ppm	25ppm	None
2-Ethoxyethyl acetate; Cellosolve acetate (111-15-9)	1~5	100ppm	100ppm	None
Dimethyl ether; DME (115-10-6)	70~80	None	None	None
Non-Hazardous Ingredients				
Alkyd resin	5~10			
Acrylic resin				
Nitrocellulose				
Others				
TOTAL	100			

SECTION 2. Physical/Chemical Characteristics

Boiling Point (°C) Typical aerosol property	Specific Gravity (H₂O=1) 0.8 at 20°C (Liquid base)
Vapor Pressure (mmHg or Pa) 20mmHg at 18°C (Toluene) 40-45mmHg at 20°C (Xylene) 13mmHg at 20°C (Isobutyl acetate) 13mmHg at 20°C (n-butyl acetate) 92mmHg at 25°C (Ethyl acetate) mmHg at °C (2-Butoxyethanol) 400mmHg at 38°C (Acetone) 17mmHg at 22°C (Methyl isobutyl ketone) 4mmHg at 20°C (Cyclohexanone) 1mmHg at 20°C (2-Ethoxyethyl acetate) 1,930mmHg at 0°C, 3,800mmHg at 20.8°C (DME)	Melting Point (°C) Not applicable
Vapor Density (Air = 1) 1.59(DME), 3.2(Toluene)	Evaporation Rate (Butyl Acetate = 1) Not determined
Solubility in water (%)	

Not applicable

Appearance and Odor

Milky white or black liquid with aromatic and ethereal odor.

SECTION 3. Fire and Explosion Hazard Data

Flash Point (Method Used)	Auto-Ignition Temperature	Flammable Limits in Air % by Volume	LEL	UEL
-41°C (DME), 5°C (Toluene)	350°C (DME), 480°C (Toluene),		3.4~27 (DME),	1.9~7.1 (Toluene)

Extinguishing Media

Dry chemical or CO₂ or foam

Special Fire Fighting Procedures; Self-contained breathing apparatus and protective clothing

Should be worn in fighting fires involving chemicals.

Unusual Fire and Explosion Hazards;

Vapors are heavier than air and can travel along the ground to remote ignition sources.

SECTION 4. Reactivity Hazard Data

Stability	<input type="checkbox"/> Unstable	Conditions to Avoid;
	<input checked="" type="checkbox"/> Stable	Avoid spraying into open flame.

Incompatibility (Materials to Avoid); Oxidizing material can cause a reaction.

Hazardous Decomposition Products

Metal Oxides, Nitrogen Oxides and traces of incompletely burned carbon products.

Hazardous	<input type="checkbox"/> May Occur	Condition To Avoid;
Polymerization	<input checked="" type="checkbox"/> Will Not Occur	Not applicable

SECTION 5. Health Hazard Data

Primary Route(s) of Entry;	<input checked="" type="checkbox"/> Inhalation	<input checked="" type="checkbox"/> Skin	<input checked="" type="checkbox"/> Ingestion	<input type="checkbox"/> Not Hazardous
Carcinogen Listed In	<input type="checkbox"/> NTP	<input type="checkbox"/> OSHA	<input type="checkbox"/> IARC Monograph	<input checked="" type="checkbox"/> No Listed

Health Hazards (Acute and Chronic); No information is available.

Signs and Symptoms of Exposure

Eye Contact; Direct contact irritates. May be serious with redness, swelling and some corneal injury lasting several days to a week.

Skin Contact; A single relatively short exposure (less than 24 hours) irritates.

Repeated prolonged contact (24 to 48 hours) irritates seriously, may burn mildly.

Inhalation; Short vapors exposure may cause drowsiness and irritate nose and throat.

Vapors may injure lungs, blood, liver, kidneys and nervous system. The degree of injury will depend on the concentration and duration of exposure.

Ingestion; Swallowing small amounts may cause blindness, even death.

Inhaling liquid while vomiting can injure lungs seriously.

Medical Conditions Generally Aggravated by Exposure; No information is available.

Emergency and First Aid Procedures

Eye Contact; Immediately flush with water for at least 15 minutes. Obtain immediate medical attention.

Skin Contact; Immediately wipe off and flush with mild soap and water.

Get medical attention if irritation develops.

Inhalation; Remove to fresh air. Obtain immediate medical attention if ill effects persist.

Ingestion; No information is available. (Let a person see a doctor.)

SECTION 6. Control And Protective Measures

Respiratory Protection (Specify Type)	Organic vapor type.		
Ventilation To Be Used	<input checked="" type="checkbox"/> Local Exhaust	<input checked="" type="checkbox"/> Mechanical (General)	<input type="checkbox"/> Special
	<input type="checkbox"/> Other (Specify)		

Protective Gloves

Rubber or plastic recommended.

Eye Protection

Chemical workers goggles.

Other Protective Clothing or Equipment: Eye wash equipment, etc., as required by your company.

Hygienic Work Practices: Wash thoroughly after handling.

SECTION 7. Precautions For Safe Handling and Use / Leak Procedures

Step to be taken in case material is released or spilled

Remove all sources of ignition and wear proper protection equipment.

Ventilate and use absorbent material to collect and contain for salvage or disposal.

Waste Disposal Method : Dispose of the material in accordance with local regulations .

Precautions to be taken in Handling and Storing ;

Put on personal protective equipment and avoid contact with eyes and prolonged or repeated skin contact. Keep container closed. Store in a cool place. Keep away from water, acids, heat and all sources of ignition. Don't lay the container on its side.

Other Precautions and/or Special Hazards :

Store at temperature below 40°C. Store drums in a cool place, bung up and tightly closed. Do not unnecessarily inhale gas of high concentration, for example by bringing the container close to your nose. Static electricity may accumulate and create a fire hazard.
