

# Material Safety Data Sheet

Issuing Date 25-Aug-2009

Revision Date 04-May-2012

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Metal Blackening System  
**Recommended Use** Propellant (For Paint dispensing)

**Supplier Address**  
Eastwood Company  
263 Shoemaker Road  
Pottstown, PA 19464  
1-800-343-9353

**Emergency Telephone Number**  
**Chemtrec**  
**1-800-424-9300**

## 2. HAZARDS IDENTIFICATION

**DANGER!**

### Emergency Overview

Flammable gas  
Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing  
May cause central nervous system depression  
Causes adverse cardiovascular effects  
Compressed gas  
Contents under pressure

**Appearance** Colorless.**Physical State** Aerosol.**Odor** Slight ethereal

### Potential Health Effects

#### Acute Toxicity

**Eyes**

May cause irritation. Contact with product may cause frostbite.

**Skin**

May cause frostbite. Irritating to skin.

**Inhalation**

Harmful by inhalation. Inhalation of vapors in high concentration may cause irritation of respiratory system. At very high concentrations can displace the normal air and cause suffocation from lack of oxygen. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

**Ingestion**

Not an expected route of exposure. May cause additional effects as listed under "Inhalation".

#### Chronic Effects

Avoid repeated exposure. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal

#### Aggravated Medical Conditions

Cardiovascular. Respiratory disorders. Central nervous system.

#### Interactions with Other Chemicals

Use of alcoholic beverages may enhance toxic effects.

#### Environmental Hazard

See Section 12 for additional Ecological Information.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Dimethyl ether	115-10-6	40-70
Isobutane	75-28-5	15-40
Propane	74-98-6	15-40

### 4. FIRST AID MEASURES

<b>General Advice</b>	Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.
<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>Skin Contact</b>	Wash off with warm water and soap. In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
<b>Inhalation</b>	Move victim to fresh air. Administer oxygen if breathing is difficult and you are trained. If breathing has stopped, contact emergency medical services immediately.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Consult a physician.
<b>Notes to Physician</b>	Treat symptomatically.
<b>Protection of First-aiders</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Extremely flammable liquefied gas. Vapors from liquefied gas are initially heavier than air and spread along ground. Containers may explode when heated.
<b>Flash Point</b>	-155°F / -104°C
<b>Flashpoint Method</b>	Estimated
<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical or CO <sub>2</sub> . Water spray, fog or regular foam. Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists.
<b>Hazardous Combustion Products</b>	Carbon monoxide. Carbon dioxide (CO <sub>2</sub> ). Formaldehyde.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	None
<b>Sensitivity to Static Discharge</b>	Yes.
<b>Specific Hazards Arising from the Chemical</b>	Vapors from liquefied gas are initially heavier than air and spread along ground. Avoid inhalation of combustion products. Cylinders exposed to fire may vent and release flammable gas through pressure relief devices. Ruptured cylinders may rocket.
<b>Protective Equipment and Precautions for Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<b>NFPA</b>	<b>Health Hazard 2</b>	<b>Flammability 4</b>	<b>Instability 1</b>	<b>Physical and Chemical Hazards -</b>
<b>HMIS</b>	<b>Health Hazard 2</b>	<b>Flammability 4</b>	<b>Physical Hazard 1</b>	<b>Personal Protection X</b>

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to safe areas. Remove all sources of ignition. Keep people away from and upwind of spill/leak. Stop leak if you can do it without risk. Take precautionary measures against static discharges. Pay attention to flashback.
<b>Environmental Precautions</b>	Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for Containment</b>	If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate.
<b>Methods for Cleaning Up</b>	This material is a gas at room temperature. Do not direct water at spill or source of leak.
<b>Other Information</b>	Ventilate the area.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in area provided with appropriate exhaust ventilation. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Contents under pressure. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can.
<b>Storage</b>	Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Keep at temperature not exceeding 52°C

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isobutane 75-28-5	TWA: 1000 ppm	N/A	N/A
Propane 74-98-6	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

<b>Engineering Measures</b>	Eyewash stations. Showers. Explosion proof ventilation systems.
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Safety glasses with side-shields.
<b>Skin and Body Protection</b>	Wear fire/flame resistant/retardant clothing. Antistatic boots Neoprene gloves.
<b>Respiratory Protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene Measures</b>	When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Colorless.	<b>Odor</b>	Slight ethereal.
<b>Odor Threshold</b>	No information available	<b>Physical State</b>	Aerosol
<b>pH</b>	No information available.		
<b>Flash Point</b>	-155°F / -104°C	<b>Flashpoint Method</b>	Estimated
<b>Autoignition Temperature</b>	No information available.	<b>Decomposition Temperature</b>	No information available.
<b>Boiling Point/Boiling Range</b>	-42.2 to -11.7°C	<b>Melting Point/Range</b>	No information available
<b>Flammability Limits in Air</b>	No information available.		
<b>Specific Gravity</b>	0.6	<b>Water Solubility</b>	3.5%
<b>Solubility</b>	No information available.	<b>Evaporation Rate</b>	No information available
<b>Vapor Pressure</b>	No data available.	<b>Vapor Density</b>	No data available.
<b>VOC Content (%)</b>	100		

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage conditions.
<b>Incompatible Products</b>	Strong oxidizing agents. Halogens. Strong acids. Aluminium hydride Aluminum lithium hydride.
<b>Conditions to Avoid</b>	Heat, flames and sparks. Temperatures above 52°C.
<b>Hazardous Decomposition Products</b>	Formaldehyde. Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).
<b>Hazardous Reactions</b>	None under normal processing.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION****Acute Toxicity**

<b>Product Information</b>	No acute toxicity information is available for this product.
<b>Inhalation</b>	May be harmful if inhaled. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.
<b>Eye Contact</b>	May cause irritation.
<b>Skin Contact</b>	Contact with product may cause frostbite
<b>Ingestion</b>	Not an expected route of exposure.

**Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dimethyl ether			= 308.5 mg/L ( Rat ) 4 h
Isobutane			= 658 mg/L ( Rat ) 4 h
Propane		-	= 658 mg/L ( Rat ) 4 h

**Chronic Toxicity**

<b>Chronic Toxicity</b>	Avoid repeated exposure. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal
<b>Carcinogenicity</b>	There are no known carcinogenic chemicals in this product.
<b>Target Organ Effects</b>	Central nervous system (CNS). Heart.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Chemical Name	Log Pow
Dimethyl ether	-0.18
Isobutane	2.88
Propane	2.3

**13. DISPOSAL CONSIDERATIONS**

<b>Waste Disposal Methods</b>	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
<b>Contaminated Packaging</b>	Dispose of in accordance with local regulations. Do not re-use empty containers.
<b>US EPA Waste Number</b>	D001

<b>14. TRANSPORT INFORMATION</b>
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**DOT**

<b>Proper shipping name</b>	Consumer commodity
<b>Hazard Class</b>	ORM-D
<b>Description</b>	Consumer commodity,ORM-D
<b>Emergency Response Guide Number</b>	126

**TDG**

<b>UN-Number</b>	UN1950
<b>Proper Shipping Name</b>	Aerosols
<b>Hazard Class</b>	2.1
<b>Description</b>	AEROSOLS,2.1,UN1950

**MEX**

<b>UN-Number</b>	UN1950
<b>Proper Shipping Name</b>	Aerosols
<b>Hazard Class</b>	2.1
<b>Description</b>	UN1950 Aerosols,2,

**ICAO**

<b>UN-Number</b>	UN1950
<b>Proper shipping name</b>	Aerosols
<b>Hazard Class</b>	2.1
<b>Description</b>	Aerosols,UN1950

**IATA**

<b>UN-Number</b>	ID8000
<b>Proper Shipping Name</b>	Consumer Commodity
<b>Hazard Class</b>	9
<b>ERG Code</b>	9L
<b>Special Provisions</b>	A112
<b>Description</b>	ID8000, Consumer Commodity, 9

**IMDG/IMO**

<b>UN-Number</b>	UN1950
<b>Proper Shipping Name</b>	Aerosols
<b>Hazard Class</b>	2.1
<b>Subsidiary Class</b>	+
<b>EmS No.</b>	F-D, S-U
<b>Description</b>	UN1950, Aerosols,2(+)

**RID**

<b>UN-Number</b>	UN1950
<b>Proper Shipping Name</b>	Aerosols
<b>Hazard Class</b>	2.1
<b>Classification Code</b>	5A
<b>Description</b>	UN1950 Aerosols,2,RID
<b>ADR/RID-Labels</b>	2

**ADR**

<b>UN-Number</b>	UN1950
<b>Proper Shipping Name</b>	Aerosols
<b>Hazard Class</b>	2.1
<b>Classification Code</b>	5A
<b>Description</b>	UN1950 Aerosols,2,

**ADN**

UN-No	UN1950
Proper Shipping Name	Aerosols
Hazard Class	2.1
Classification Code	5F
Special Provisions	190, 327, 625
Description	UN1950 Aerosols,2,
Hazard Labels	2.1
Limited Quantity	LQ2
Ventilation	VE01, VE04

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

TSCA	Complies
DSL	Complies
EINECS	Complies
ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

**Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

**U.S. Federal Regulations**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Dimethyl ether	X	X	X		X
Isobutane	X	X	X		
Propane	X	X	X		X

## International Regulations

### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

### WHMIS Hazard Class

A Compressed gases

B1 Flammable gas



## 16. OTHER INFORMATION

### Prepared By

Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

### Issuing Date

25-Aug-2009

### Revision Date

04-May-2012

### Revision Note

(M)SDS sections updated. 2. 5. 6. 8.

### General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**