



Material Safety Data Sheet
ALOX ® 2140-53, PART # 0057

Prepared according to 29CFR 1910.1200.

1	Chemical Product and Company Identification
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THE LUBRIZOL CORPORATION
29400 Lakeland Boulevard
Wickliffe, OH 44092-2298
Phone: (440)943-1200

Product Trade Name ALOX ® 2140-53, PART # 0057
CAS Number Not applicable for mixtures.
Synonyms None.
Generic Chemical Name Mixture.
Product Type Metalworking fluid additive.
 Rust preventive additive
Preparation/Revision Date 12 November 2007
Transportation Emergency Phone No. (CHEMTREC) 1-800-424-9300. Outside the U.S. (703) 527-3887
MSDS No. 15677537-1113411-0182710-811103

2	Hazards Identification
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Appearance Brown liquid.
Odor Hydrocarbon
Principal Hazards **WARNING.**

- HARMFUL IF INHALED.
- CAUSES EYE IRRITATION.
- CAUSES SKIN IRRITATION.
- COMPONENT(S) KNOWN TO CAUSE CHRONIC HUMAN HEALTH EFFECTS.
- COMBUSTIBLE LIQUID.

Target Organs: Blood, Brain, Central nervous system, Kidney, Liver, Lung

This material is considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200.
 See Section 11 for complete health hazard information.

3	Composition/Information on Ingredients
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Hazardous Ingredients

Comp	CAS No.	Percentage (by wt.)	Carcinogen
Mineral spirits	8052-41-3	From 40 to 49.9 percent	N/E

(N/E) - None established

4	First Aid Measures
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Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
Skin	Wash with plenty of soap and water. Immediately remove contaminated clothing. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse.
Inhalation	Remove exposed person to fresh air if adverse effects are observed. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. If irritation persists or if toxic symptoms are observed, get medical attention.
Oral	DO NOT INDUCE VOMITING. Get immediate medical attention.
Additional Information	Get medical attention advice if you feel unwell.

5	Fire Fighting Measures
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Flash Point	41 °C, 105.8 °F COC (Typical)
Extinguishing Media	CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.
Firefighting Procedures	Recommend wearing self-contained breathing apparatus. Water may cause splattering.
Unusual Fire & Explosion Hazards	Toxic fumes, gases or vapors may evolve on burning. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Container may rupture on heating.

6	Accidental Release Measures
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Spill Procedures	May form explosive mixtures with air. Immediately evacuate all personnel from danger area. Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Eliminate all sources of heat, sparks pilot lights, static electricity and open flames. Ventilate spill area. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation. Do not dispose in landfill. Pick up free liquid for recycle and/or disposal if can be accomplished safely with explosion proof equipment. Residual liquid can be absorbed on inert material. Check under Transportation and Labeling (DOT/CERCLA) and Other Regulatory Information Section (SARA) for hazardous substances to determine regulatory reporting requirements for spills.
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7	Handling and Storage
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Pumping Temperature	Not determined.
Maximum Handling Temperature	33 °C, 91.4 °F
Handling Procedures	Keep away from ignition sources such as heat, sparks and open flame. No smoking. Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. Do not breath dust, fume, gas, mist, vapors or spray. Ground / bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Wash thoroughly after handling. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition.
Maximum Storage Temperature	Ambient
Storage Procedures	Do not store near potential sources of ignition. Isolated outside storage is preferred. Inside storage area should be in a flammable liquids cabinet or storage area. Store in a cool, dry, well-ventilated area. Keep container tightly closed.

Loading Temperature Not determined.

8	Exposure Controls/Personal Protection
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Exposure Limits

Comp	Exposure Guidelines					
	OSHA		ACGIH		Other	
	TWA	STEL	TWA	STEL	TWA	STEL
Mineral spirits	500 ppm	N/E	100 ppm	N/E	N/E	N/E

- (s) - Skin exposure
- (p) - Proposed limit
- (c) - Ceiling exposure
- (l) - Recommended exposure limit
- (u) - Supplier recommended exposure limit
- (N/E) - None established

Other Exposure Limits None known.

Engineering Controls Use material in well ventilated area only. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits. Use explosion proof equipment.

Gloves Procedures Use nitrile or neoprene gloves.

Eye Protection Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.

Respiratory Protection Use NIOSH/MSHA approved full face respirator with a combination organic vapor and high efficiency filter cartridge if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.

Clothing Recommendation Long sleeve shirt is recommended. Wear a chemically protective apron when contact with material may occur. When working with heated material, wear an insulated apron or an insulated chemical protective suit. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction. Launder contaminated clothing before reuse.

9	Physical and Chemical Properties
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- Flash Point** 41 °C, 105.8 °F COC (Typical)
- Upper Flammable Limit** Not determined.
- Lower Flammable Limit** Not determined.
- Autoignition Point** Not determined.
- Explosion Data** Material does not have explosive properties in the liquid state, but vapors may form explosive mixtures with air.
- Vapor Pressure** Not determined.
- pH** Not determined.
- Specific Gravity** 0.86 (15.6 °C)
- Bulk Density** Not determined.
- Water Solubility** Insoluble.
- Percent Solid** Not determined.
- Percent Volatile** Unknown.
- Volatile Organic Compound** Not determined.
- Vapor Density** Not determined.
- Evaporation Rate** Not determined.

Odor	Hydrocarbon
Appearance	Brown liquid.
Viscosity	Unknown.
Odor Threshold	Unknown.
Boiling Point	150 °C, 302 °F(Initial)
Pour Point Temperature	Not determined.
Melting / Freezing Point	Not determined.

The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise noted.

10	Stability and Reactivity
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Stability	Material is normally stable at moderately elevated temperatures and pressures.
Decomposition Temperature	Not determined.
Incompatibility	Strong oxidizing agents.
Polymerization	Will not occur.
Thermal Decomposition	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.
Conditions to Avoid	Not determined.

11	Toxicological Information
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-- ACUTE EXPOSURE --

Eye Irritation	Moderate to strong eye irritation. Based on data from components or similar material.
Skin Irritation	Skin irritant. Based on data from components or similar materials.
Respiratory Irritation	If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. Based on data from components and similar materials.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.
Inhalation Toxicity	High concentrations may cause headaches, dizziness, nausea, stupor, and other central nervous system effects leading to visual impairment, difficulty breathing and convulsions. High concentrations may cause irregular heartbeats and possibly fatal cardiac arrhythmias. High concentration of vapors can reduce oxygen content in the air of confined spaces resulting in oxygen deprivation.
Oral Toxicity	The LD50 in rats is > 5000 mg/kg. Based on data from components or similar materials. Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain. Ingestion may cause CNS depression. Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in pulmonary edema and chemical pneumonitis.
Dermal Sensitization	No data available to indicate product or components may be a skin sensitizer.
Inhalation Sensitization	No data available to indicate product or components may be respiratory sensitizers.

-- CHRONIC EXPOSURE --

Chronic Toxicity	Repeated overexposure to aliphatic mineral spirits such as Stoddard Solvent can cause chronic nervous system disease.
Carcinogenicity	No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive Toxicity	No data available to indicate either product or components present at greater than 0.1% that

may cause reproductive toxicity.

Teratogenicity No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

-- ADDITIONAL INFORMATION --

Other Petroleum hydrocarbon solvent is toxic to lungs, central nervous system, brain, mucous membranes, skin, eyes and possibly the blood, liver or kidneys.

12	Ecological Information
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-- ENVIRONMENTAL TOXICITY --

Freshwater Fish Toxicity The acute LC50 is 1 - 10 mg/L based on component data.

Freshwater Invertebrates Toxicity Not determined.

Algal Inhibition Not determined.

Saltwater Fish Toxicity Not determined.

Saltwater Invertebrates Toxicity Not determined.

Bacteria Toxicity Not determined.

Miscellaneous Toxicity Not determined.

-- ENVIRONMENTAL FATE --

Biodegradation Adequate data is not available to estimate the biodegradation potential of this material.

Bioaccumulation There is no data available to evaluate this material for bioconcentration.

Soil Mobility Not determined.

13	Disposal Considerations
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Waste Disposal This material, if discarded, is a hazardous waste under RCRA Regulation 40 CFR 261. Waste management should be in compliance with federal, state and local laws. Material, if discarded, is expected to be hazardous waste under RCRA due to ignitability (D001).

14	Transport Information
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ICAO/IATA (US) UN1268 Petroleum distillates, n.o.s., Class 3, PG III

ICAO/IATA (International) UN1268 Petroleum distillates, n.o.s., Class 3, PG III

IMDG UN1268 Petroleum distillates, n.o.s., Class 3, PG III

IMDG EMS Fire F-E

IMDG EMS Spill S-E

IMDG MFAG 311

IMO Marine Vessel DO NOT TRANSPORT - ADDITIONAL INFORMATION REQUIRED

U.S. Barge DO NOT TRANSPORT - ADDITIONAL INFORMATION REQUIRED

USCG Compatibility Not determined.

U.S. DOT Bulk UN1268 Petroleum distillates, n.o.s. Class Combustible Liquid, PG III

U.S. DOT Non-Bulk Not regulated.

DOT NAERG 128

TDG Bulk UN1268 Petroleum distillates, n.o.s., Class 3, PG III

TDG Non-Bulk Not regulated.

Mexico UN1268 Petroleum distillates, n.o.s., Class 3, PG III

Mexico Non-Bulk Not regulated.
Bulk Quantity 85000 liters, 22457 gal.
Non-Bulk Quantity 207.8 liters, 55 gal.

Review classification requirements before shipping materials at elevated temperatures.

15	Regulatory Information
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-- Global Chemical Inventories --

USA All components of this material are on the US TSCA Inventory or are exempt.

Other TSCA Reg. None known.

EU All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC.

Japan All components are in compliance with the Chemical Substances Control Law of Japan.

Australia All components are in compliance with chemical notification requirements in Australia.

Canada All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.

Switzerland All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Korea All components are in compliance in Korea.

Philippines All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).

China All components of this product are listed on the Inventory of Existing Chemical Substances in China.

-- Other U.S. Federal Regulations --

SARA Ext. Haz. Subst. This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.

SARA Section 313 This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substance) of any chemical substances listed under SARA Section 313.

SARA 311 Classifications

Acute Hazard	Yes
Chronic Hazard	Yes
Fire Hazard	Yes
Reactivity Hazard	No

CERCLA Hazardous Substances

None known.

FDA Approval

Not applicable.

-- State Regulations --

Cal. Prop. 65 This product does not intentionally contain any chemicals known by the State of California to cause cancer and/or birth defects. Moreover, we do not routinely analyze its products for impurities which may be such chemicals.

-- Product Registrations --

U.S. Fuel Registration Not applicable.

U.S. Dept of Agriculture This product has not been filed with the USDA to support H2 approvals.

NSF Nonfood Compounds Registration This product has not been filed with the NSF to support H1 or H2 approvals.

Finnish Registration Number Not Registered

Swedish Registration

Number Not Registered
 Norwegian Registration Number Not Registered
 Danish Registration Number Not Registered
 Swiss Registration Number Not Registered
 Italian Registration Number Not Registered
 Korean Registration Number Not Registered
 New Zealand Registration Number 184613

-- Other / International --

TDG Regulated Limit. None known.
 U.S. Tariff Heading Number 3811.29.00.00
 Schedule B Number 3811.29.0000

16	Other Information
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US NFPA Codes

Health	Fire	Reactivity	Special
2	2	0	N/E

(N/E) - None established

HMIS Codes

Health	Fire	Reactivity
2*	2	0

Precautionary Labels

WARNING.

- **HARMFUL IF INHALED.**
- **CAUSES EYE IRRITATION.**
- **CAUSES SKIN IRRITATION.**
- **COMPONENT(S) KNOWN TO CAUSE CHRONIC HUMAN HEALTH EFFECTS.**
- **COMBUSTIBLE LIQUID.**

Revision Indicators

Section: 4 ADDITIONAL FIRST AID MEASURES	Changed: 12 October 2007
Section: 7 HANDLING PROCEDURES	Changed: 12 October 2007
Section: 7 STORAGE PROCEDURES	Changed: 19 March 2007
Section: 8 CLOTHING RECOMMENDATIONS	Changed: 19 March 2007
Section: 8 RESPIRATORY PROTECTION	Changed: 12 October 2007
Section: 11 INHALATION TOXICITY	Changed: 12 October 2007
Section: 11 OTHER	Changed: 12 October 2007
Section: 12 FRESHWATER FISH TOXICITY	Changed: 19 March 2007

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Melodee Nemeth
Product Development Manager - Technology
CRC Industries, Inc.
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December 13, 2007

Re: ALOX® 2140-53

Dear Melodee,

ALOX® 2140-53 is comprised of the following components:

Mineral spirits: CAS# 8052-41-3
Calcium oxidate: NJRTK# 800967-5454
Paraffin wax: NJRTK# 800967-5519

Please contact me if I can be of further assistance.

Very truly yours,

A handwritten signature in black ink, appearing to read "Phil Miller". The signature is fluid and cursive, with the first name "Phil" and last name "Miller" clearly distinguishable.

Phil Miller
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