



Prepared according to 29CFR 1910.1200.

1	<b>Chemical Product and Company Identification</b>
---	--

**THE LUBRIZOL CORPORATION**  
 29400 Lakeland Boulevard  
 Wickliffe, OH 44092-2298  
 Phone: (440)943-1200

<b>Product Trade Name</b>	ALOX® 606-55HF
<b>CAS Number</b>	Not applicable for mixtures.
<b>Synonyms</b>	None.
<b>Generic Chemical Name</b>	Mixture.
<b>Product Type</b>	Metalworking fluid additive. Rust preventive additive
<b>Preparation/Revision Date</b>	05 December 2006
<b>Transportation Emergency Phone No.</b>	(CHEMTREC ) 1-800-424-9300. Outside the U.S. (703) 527-3887
<b>MSDS No.</b>	84376874-1802322-311630-811103

2	<b>Hazards Identification</b>
---	-------------------------------

<b>Appearance</b>	Brown liquid.
<b>Odor</b>	Hydrocarbon
<b>Principal Hazards</b>	<b>WARNING.</b> <ul style="list-style-type: none"> <li>• HARMFUL IF INHALED.</li> <li>• CAUSES EYE IRRITATION.</li> <li>• HARMFUL IF ABSORBED THROUGH SKIN.</li> <li>• COMBUSTIBLE LIQUID.</li> <li>• MAY CAUSE SKIN IRRITATION.</li> <li>• MAY CAUSE CHRONIC HEALTH EFFECTS.</li> </ul>
<b>Target Organs:</b>	Central nervous system, Respiratory system

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

3	<b>Composition/Information on Ingredients</b>
---	---

<b>Hazardous Ingredients</b>			
------------------------------	--	--	--

Comp	CAS No.	Percentage (by wt.)	Carcinogen
Petroleum naphtha	64742-88-7	From 40 to 49.9 percent	N/E
n-Nonane	111-84-2	From 1 to 4.9 percent	N/E
1,2,4-Trimethylbenzene	95-63-6	2.3%	N/E
n-Octane	111-65-9	From 0.5 to 1.5 percent	N/E

(N/E) - None established

<b>4</b>	<b>First Aid Measures</b>
----------	---------------------------

<b>Eyes</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice / attention.
<b>Skin</b>	Wash with soap and water. Immediately remove contaminated clothing. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse.
<b>Inhalation</b>	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.
<b>Oral</b>	DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.
<b>Additional Information</b>	Note to physician: Treat symptomatically.

<b>5</b>	<b>Fire Fighting Measures</b>
----------	-------------------------------

<b>Flash Point</b>	69 °C, 156.2 °F ABEL (Typical)
<b>Extinguishing Media</b>	CO <sub>2</sub> , dry chemical, or foam. Water can be used to cool and protect exposed material.
<b>Firefighting Procedures</b>	Recommend wearing self-contained breathing apparatus. Water may cause splattering.
<b>Unusual Fire &amp; Explosion Hazards</b>	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.

<b>6</b>	<b>Accidental Release Measures</b>
----------	------------------------------------

<b>Spill Procedures</b>	Evacuate all non-essential personnel. Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Remove sources of ignition. 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. 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.
-------------------------	---

<b>7</b>	<b>Handling and Storage</b>
----------	-----------------------------

<b>Pumping Temperature</b>	Not determined.
<b>Maximum Handling Temperature</b>	35 °C, 95 °F
<b>Handling Procedures</b>	Keep away from potential sources of ignition. Open container in a well ventilated area. Avoid breathing vapors. 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. Avoid breathing dust, fume, gas, mist, vapors or spray. 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. Store in well ventilated place. Equip bulk storage tanks with overfill protection such as high level alarms or secondary containment. Store drums in area with secondary containment. Storage area should be covered to prevent rain water from entering.

**Loading Temperature**

Not determined.

8	<b>Exposure Controls/Personal Protection</b>
---	--

**Exposure Limits**

Comp	Exposure Guidelines					
	OSHA		ACGIH		Other	
	TWA	STEL	TWA	STEL	TWA	STEL
Petroleum naphtha	N/E	N/E	N/E	N/E	100 ppm (u)	200 ppm (u)
n-Nonane	N/E	N/E	200 ppm	N/E	N/E	N/E
n-Octane	500 ppm	N/E	300 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**      Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH STEL of 10 mg per cubic meter.

**Engineering Controls**      Mechanical exhaust required. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.

**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 dust/mist 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.

**Clothing Recommendation**    Long sleeve shirt is recommended. Wear either a chemical protective suit or apron when potential for contact with material exists. 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	<b>Physical and Chemical Properties</b>
---	---

**Flash Point**                    69 °C, 156.2 °F ABEL (Typical)

**Upper Flammable Limit**      Not determined.

**Lower Flammable Limit**      Not determined.

**Autoignition Point**          Not determined.

**Explosion Data**                Material does not have explosive properties.

**Vapor Pressure**                Not determined.

<b>pH</b>	Not determined.
<b>Specific Gravity</b>	0.88 (15.6 °C)
<b>Bulk Density</b>	Not determined.
<b>Water Solubility</b>	Insoluble.
<b>Percent Solid</b>	Not determined.
<b>Percent Volatile</b>	Unknown.
<b>Volatile Organic Compound</b>	Not determined.
<b>Vapor Density</b>	Not determined.
<b>Evaporation Rate</b>	Not determined.
<b>Odor</b>	Hydrocarbon
<b>Appearance</b>	Brown liquid.
<b>Viscosity</b>	Unknown.
<b>Odor Threshold</b>	Unknown.
<b>Boiling Point</b>	150 °C, 302 °F(Initial)
<b>Pour Point Temperature</b>	Not determined.
<b>Melting / Freezing Point</b>	Not determined.

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

<b>10</b>	<b>Stability and Reactivity</b>
-----------	---------------------------------

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

<b>11</b>	<b>Toxicological Information</b>
-----------	----------------------------------

**-- ACUTE EXPOSURE --**

<b>Eye Irritation</b>	Moderate to strong eye irritation. Based on data from components or similar material.
<b>Skin Irritation</b>	May cause skin irritation. Based on data from components or similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
<b>Respiratory Irritation</b>	Nose, throat and lung irritant. Based on data from components or similar materials. Exposure to a high concentration of vapor or mist may be irritating. Breathing of vapor or mist may aggravate asthma and inflammatory or fibrotic pulmonary disease.
<b>Dermal Toxicity</b>	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials. Prolonged or widespread contact with this material could result in the absorption of potentially harmful amounts. May be harmful through skin absorption.
<b>Inhalation Toxicity</b>	High concentrations may cause headaches, dizziness, nausea, behavioral changes, weakness, drowsiness and stupor.
<b>Oral Toxicity</b>	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.

<b>Dermal Sensitization</b>	No data available to indicate product or components may be a skin sensitizer.
<b>Inhalation Sensitization</b>	No data available to indicate product or components may be respiratory sensitizers.

**-- CHRONIC EXPOSURE --**

<b>Chronic Toxicity</b>	Repeated overexposure to petroleum naphtha can cause nervous system damage.
<b>Carcinogenicity</b>	No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.
<b>Mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Reproductive Toxicity</b>	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
<b>Teratogenicity</b>	No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

**-- ADDITIONAL INFORMATION --**

<b>Other</b>	No other health hazards known.
--------------	--------------------------------

<b>12</b>	<b>Ecological Information</b>
-----------	-------------------------------

**-- ENVIRONMENTAL TOXICITY --**

<b>Freshwater Fish Toxicity</b>	The acute LC50 is 1 - 10 mg/L based on component data.
<b>Freshwater Invertebrates Toxicity</b>	Not determined.
<b>Algal Inhibition</b>	Not determined.
<b>Saltwater Fish Toxicity</b>	Not determined.
<b>Saltwater Invertebrates Toxicity</b>	Not determined.
<b>Bacteria Toxicity</b>	Not determined.
<b>Miscellaneous Toxicity</b>	Not determined.

**-- ENVIRONMENTAL FATE --**

<b>Biodegradation</b>	At least 25% of the components in this product show moderate biodegradation based on OECD 302-type test data.
<b>Bioaccumulation</b>	25% or greater of the components potentially bioconcentrate, based on octanol/water coefficients.
<b>Soil Mobility</b>	Not determined.

<b>13</b>	<b>Disposal Consideration</b>
-----------	-------------------------------

<b>Waste Disposal</b>	This material, if discarded, is not a hazardous waste under RCRA Regulation 40 CFR 261.
-----------------------	---

<b>14</b>	<b>Transport Information</b>
-----------	------------------------------

<b>ICAO/IATA (US)</b>	Not regulated.
<b>ICAO/IATA (International)</b>	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Petroleum naphtha), Class 9, PG III, Marine Pollutant
<b>IMDG</b>	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Petroleum naphtha), Class 9, PG III, Marine Pollutant

IMDG EMS Fire	F-A
IMDG EMS Spill	S-F
IMDG MFAG	NONE
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	NA1993 Combustible liquid, n.o.s. (n-Nonane, Petroleum naphtha), PG III, Marine Pollutant (Petroleum naphtha)
U.S. DOT Non-Bulk	Not regulated.
DOT NAERG	128
TDG Bulk	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Petroleum naphtha), Class 9, PG III, Marine Pollutant
TDG Non-Bulk	Not regulated.
Mexico	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Petroleum naphtha), Class 9, PG III, Marine Pollutant
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
----	------------------------

**-- Global Chemical Inventories --**

USA	All components of this material are on the US TSCA Inventory or are exempt.
Other TSCA Reg.	Section 4a (Nonane). May be subject to export notification under TSCA Section 12(b).
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** 2.3% 1,2,4-Trimethylbenzene, CAS no. 95-63-6

**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** Not Registered

**-- Other / International --**

**TDG Regulated Limit.** None known.  
**U.S. Tariff Heading Number** 3811.29.00.00  
**Schedule B Number** Not determined.

<b>16</b>	<b>Other Information</b>
-----------	--------------------------

**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.
- HARMFUL IF ABSORBED THROUGH SKIN.
- COMBUSTIBLE LIQUID.
- MAY CAUSE SKIN IRRITATION.
- MAY CAUSE CHRONIC HEALTH EFFECTS.

**Revision Indicators**

Section: 2 PRINCIPAL HAZARDS

Changed: 28 November 2006

Section: 3 HAZARDOUS INGREDIENTS

Changed: 28 November 2006

Section: 8 HAZARDOUS INGREDIENTS

Changed: 28 November 2006

Section: 14 US BARGE

Changed: 28 November 2006

Section: 16 PRINCIPAL HAZARDS

Changed: 28 November 2006

---

*The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of The Lubrizol Corporation's knowledge; however, The Lubrizol Corporation makes no warranty whatsoever, expressed or implied of MERCHANTABILITY OR FITNESS FOR THE PARTICULAR PURPOSE, regarding the accuracy of such data or the results to be obtained from use thereof. The Lubrizol Corporation assumes no responsibility for injury to recipient or to third persons or for any damage to any property and recipient assumes all such risks.*