



Prepared according to 29CFR 1910.1200.

1	Chemical Product and Company Identification
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Product Trade Name	ALOX® 165
CAS Number	Confidential.
Synonyms	None.
Generic Chemical Name	Calcium oxidate
Product Type	Metal Protection Rust preventive additive
Preparation/Revision Date	14 October 2013
Transportation Emergency Phone No.	FOR TRANSPORT EMERGENCY call CHEMTREC: (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)
MSDS No.	13737147-9711110-011361-102103

2	Hazards Identification
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Appearance	Brown paste.
Odor	Mild petroleum
Principal Hazards	Caution. <ul style="list-style-type: none"> May cause eye irritation.

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
Calcium sulfonate	Confidential.	From 5 to 9.9 percent	N/E

(N/E) - None established

4	First Aid Measures
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Eyes	Rinse cautiously with water for 30 minutes. Remove contact lenses, if present and easy to do. Get medical attention if eye irritation develops or persists. If eye irritation persists, get medical attention.
Skin	Wash with soap and water for 20 minutes or until chemical is removed. Remove contaminated clothing. Get medical attention if irritation develops.
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 experiencing respiratory symptoms call a poison center or doctor.
Oral	Do NOT induce vomiting. Never give anything by mouth to a person who is losing consciousness, unconscious or convulsing. Call a poison center or doctor if exposed or you feel unwell.
Additional Information	Note to physician: Treat symptomatically.

5	Fire Fighting Measures
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Flash Point	≥ 100 °C, 212 °F PMCC (Minimum)
Extinguishing Media	CO2, dry chemical, foam, water spray, water fog. Water can be used to cool and protect exposed material.
Firefighting Procedures	Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Do not direct a solid stream of water on spilled material. Use flooding amounts of

water as a fog. Use water to cool containers exposed to fire. Do not release chemically contaminated water into drains, soil or surface water.

Unusual Fire & Explosion Hazards

Burning may produce irritating, toxic and obnoxious fumes. Container may rupture in a fire situation. DO NOT USE a solid stream of water. See section 10 for additional information.

6	Accidental Release Measures
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Spill Procedures

Only trained personnel should be permitted in area. Take precautions to avoid release to the environment. Ventilate area if spilled in confined space or other poorly ventilated areas. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation. Material on floors may be slippery. Pick up free solid for recycle and/or disposal. Wash spill area with soap and water. Pump any free liquid into an appropriate closed container.

7	Handling and Storage
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Pumping Temperature

50 °C, 122 °F

Maximum Handling Temperature

60 °C, 140 °F

Handling Procedures

Keep material away from heat, sparks, pilot lights, static electricity and open flame. Use with adequate ventilation. 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 eye contact. Avoid repeated or prolonged skin contact. When handling, do not eat, drink, or smoke. Avoid drinking, tasting, swallowing or ingesting this product. Avoid breathing dust, fume, gas, mist, vapors or spray. Use grounding and bonding connection when transferring material to prevent static discharge, fire and explosion. Use spark-resistant tools. Wash thoroughly after handling. Do not reuse empty containers. 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. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

Maximum Storage Temperature

50 °C, 122 °F

Storage Procedures

Store separately from oxidizers. Store in a cool, dry, well-ventilated area. Store separately from incompatible materials. Keep container tightly closed. Do not store in open, unlabeled or mislabeled containers. See section 10 for incompatible materials.

Maximum Loading Temperature

60 °C, 140 °F

8	Exposure Controls/Personal Protection
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Exposure Limits

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 TWA of 5 mg per cubic meter.

Engineering Controls

If use generates a mist or vapor, local exhaust ventilation is recommended. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.

Gloves Procedures

Consult clothing/glove manufacturer to determine appropriate type of glove for given situation. Gloves should always be inspected before each use and discarded if they show tears, pinholes, or signs of wear. Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur wear chemically protective gloves.

Eye Protection

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

Respiratory Protection

Use NIOSH/MSHA approved disposable dust/mist mask if the recommended exposure limit is exceeded. 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. Use chemically protective boots when necessary to avoid contaminating shoes. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction.

9	Physical and Chemical Properties
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Flash Point

≥ 100 °C, 212 °F PMCC (Minimum)

Upper Flammable Limit

Not determined.

Lower Flammable Limit

Not determined.

Autoignition Point

Not determined.

Explosion Data

Material does not have explosive properties.

Vapor Pressure

0.00045 psi (21 °C)

0.0014 psi (38 °C)

0.0077 psi (66 °C)

0.147 psi (121 °C)

pH

Not determined.

Specific Gravity

0.93 (15.6 °C)

Bulk Density

7.75 Lb/gal, 0.93 Kg/L

Water Solubility

Insoluble.

Percent Solid	Not determined.
Percent Volatile	Not determined.
Volatile Organic Compound	0.47 Lb/gal (ASTM E 1868-10)
Vapor Density	Not determined.
Evaporation Rate	Not determined.
Odor	Mild petroleum
Appearance	Brown paste.
Viscosity	103 Centistokes (40 °C) 15 Centistokes (100 °C)
Odor Threshold	Not determined.
Boiling Point	> 232 °C, > 449.6 °F(Initial)
Pour Point Temperature	39 °C, 102 °F
Melting / Freezing Point	35 °C, 95 °F

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	Oxidizing agents.
Polymerization	Will not occur.
Thermal Decomposition	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Under combustion conditions, oxides of the following elements will be formed: calcium.
Conditions to Avoid	Do not expose to excessive heat, ignition sources, or oxidizing materials.

11	Toxicological Information
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-- ACUTE EXPOSURE --

Eye Irritation	Weak to moderate eye irritant. Does not meet EU R36 criteria. Based on data from similar materials.
Skin Irritation	Not expected to be a primary skin irritant. Based on actual data. 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.
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 actual data. Exposure to a high concentration of vapor or mist may be irritating.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on actual data.
Inhalation Toxicity	No data available to indicate product or components may be a toxic inhalation hazard.
Oral Toxicity	The LD50 in rats is > 5000 mg/Kg. Based on actual data.
Dermal Sensitization	Experimental data has shown that the concentration of potentially sensitizing components present in this product does not induce skin sensitization.
Inhalation Sensitization	No data available to indicate product or components may be respiratory sensitizers.

-- CHRONIC EXPOSURE --

Chronic Toxicity	No data available to indicate product or components present at greater than 1% are chronic health hazards.
Carcinogenicity	This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
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	No other health hazards known.
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12	Ecological Information
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-- ENVIRONMENTAL TOXICITY --

Freshwater Fish Toxicity	Not determined.
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	At least 25% of the components in this product show moderate biodegradation based on OECD 301-type test data
Bioaccumulation	25% or greater of the components display no potential to bioconcentrate.
Soil Mobility	Not determined.

13	Disposal Considerations
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Waste Disposal	This material, if discarded, is not a hazardous waste under RCRA Regulation 40 CFR 261. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.
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14	Transport Information
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ICAO/IATA I	Not regulated.
ICAO/IATA II	Not regulated.
IMDG	Not regulated.
IMDG EMS Fire	Not applicable.
IMDG EMS Spill	Not applicable.
IMDG MFAG	Not applicable.
MARPOL Annex II	Not determined.
USCG Compatibility	Not determined.
U.S. DOT Bulk	Not regulated.
DOT NAERG	Not applicable.
U.S. DOT (Intermediate)	Not regulated.
U.S. DOT Intermediate NAERG	Not applicable.
U.S. DOT Non-Bulk	Not regulated.
U.S. DOT Non-Bulk NAERG	Not applicable.
Canada	Not regulated.
Mexico	Not regulated.
Bulk Quantity	85000 KG, 187391 lbs.
Intermediate Quantity	11000 KG, 24251 lbs.
Non-Bulk Quantity	400 KG, 882 lbs.

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	To obtain information on the REACH compliance status of this product, please visit Lubrizol.com/REACH , or e-mail us at REACH_MSDS_INQUIRIES@Lubrizol.com
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.
New Zealand	All components are in compliance with chemical notification requirements in New Zealand.
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.
Taiwan	All components of this product are listed on the Taiwan inventory.

-- 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.
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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	No
Fire Hazard	No
Reactivity Hazard	No

CERCLA Hazardous Substances

None known.

-- 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.
Finnish Registration Number	Not Registered
Swedish Registration Number	425200-3
Norwegian Registration Number	10737
Danish Registration Number	1372798
Swiss Registration Number	46503
Italian Registration Number	Not Registered

-- Other / International --

Miscellaneous Regulatory Information	Not determined.
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16	Other Information
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US NFPA Codes

Health	Fire	Reactivity	Special
1	1	0	N/E

(N/E) - None established

HMIS Codes

Health	Fire	Reactivity
1	1	0

Precautionary Labels

Caution.

- May cause eye irritation.

Revision Indicators

This MSDS has no revisions since 14 October 2013

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.