



SPECIALIZED LUBRICANTS

1. Substance/Product Identification

Product Name: 258 Clean & Cool
Company/Address: Schaeffer Mfg
102 Barton Street
Saint Louis, Missouri 63104
USA

Synonyms: none

Preparation/Revision Date: 05/10/2010

Product Use/Type: Cooling system treatment

Emergency Phone Number: +1 314 865-4105 (24-hour response number)
+ 1 314 865-4100 (Business hours 8:30AM-5:00PM)
1-800-325-9962 (US & Canada)

Website: www.schaefferoil.com

MSDS Number: 258 Rev 1

2. Hazards Identification

Appearance: Clear liquid

Odor: no odor

Principal Hazards: Oxidizer, corrosive, Acute health hazard

**Hazardous Materials Information System
(U.S.A)**

Health: 3
Fire: 1
Reactivity: 1
Special: OX

**National Fire Protection Agency System
(U.S.A.)**

Health: 3
Fire: 1
Reactivity: 1

See Section 11 for complete health hazard information

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3. Composition and Information on Ingredients

Hazardous Ingredients

Ingredient Name	CAS No.	EU Number	Percentage (by wt.)
Sodium nitrite	7632-00-0	231-555-9	1-5
Sodium hydroxide	1310-73-2	215-185-5	0.1-1.00

4. First Aid Measures

Ingestion: Seek immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person

Eyes: Immediately flush eyes with running water for 20 minutes. If irritation or symptoms develop seek medical attention

Inhalation: Remove to fresh air. If breathing has stopped start artificial respiration immediately. If breathing is difficult, give oxygen by qualified medical personnel only.

Skin: Remove contaminated clothing. Wash thoroughly with soap and water for 20 minutes. Wash contaminated clothing before reuse. If irritation develops or persists seek medical attention

Additional Information: Treat symptomatically

5. Fire Fighting Measures:

Flash Point: None aqueous solution

Extinguishing Media: Carbon dioxide and water/fog, Do not use dry chemical extinguishing agents that contain ammonium compounds

Firefighting Procedures: Firefighters should wear proper protective equipment and self contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do. Water spray may be useful in cooling equipment exposed to heat and flame.

Unusual Fire & Explosion: Oxidizer, contact with other materials may cause fire. Closed containers may rupture if exposed to excess heat or flame due to the build-up of internal pressure.

Hazards: Oxidizer

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6. Accidental Release Measures

Spill Procedures and Clean up methods: Ventilate area of release. Remove all sources of ignition. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand) then place absorbent material into a container for later disposal. Do not use combustible absorbents such as sawdust. Keep all other personnel upwind and away from the spill/release.

Personal Precautions: Wear appropriate protective equipment including self contained breathing apparatus

Environmental Precautions: Keep spill away from drains, sewers and waterways by diking. If spill or release is in excess of the EPA reportable quantity of 100lbs/45.4kg for sodium nitrite and/or 1000lbs/454kg for sodium hydroxide immediately report the spill to the National Response Center 800-424-8002 and all appropriate state, provincial, and local authorities.

7. Handling & Storage

Handling: Use in a well ventilated are. Wear suitable protective equipment during handling Avoid breathing mists and vapors. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks and open flames. Keep away from combustible materials. Avoid contact with incompatible materials. Wash thoroughly after handling and before eating, drinking, smoking and using toilet facilities.

Storage: Store in cool dry, well ventilated area. Store away from incompatible materials and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

8. Exposure Controls and Personal Protection

Occupational Exposure Limits

Ingredient	OSHA TWA	OSHA STEL	ACGIH TWA	ACGIH STEL
Sodium nitrite	NE	NE	NE	NE
Sodium hydroxide	2mg/m ³		2mg/m ³	

- (s)-Skin exposure
- (p) proposed limit
- (c) – Ceiling limit
- (l) Recommended exposure limit
- (u) supplier limit
- (N/E) – not established

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Other Exposure Limits

Engineering Controls: Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Personal Protective Equipment

Gloves: Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.

Protective Clothing: Wear resistant clothing and boots. An eyewash station should be available in the immediate work area

Eye Protection: Chemical splash goggles are recommended

Respiratory Protection: If TLV is exceeded a NIOSH/MSHA approved respirator is advised. Confirmation of the type of respirator is most suitable for the intended application should be obtained from respiratory protection specialists.

9. Physical and Chemical Properties

Flash Point: None Aqueous solution

Specific Gravity: 1.05

Upper Flammable Limit (UEL): Not established

Lower Flammable Limit (LEL): Not established

Vapor Pressure: Not determined

Vapor Density (air =1): Not determined

Percent Volatile: Not determined

Evaporation Rate (n-Butyl acetate=1): <1

pH: 11.8 – 12.2

Boiling Point: Not Determined

Melting Point: Not Applicable

Appearance: Clear liquid

Odor: None

Solubility in Water: Complete

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

10. Stability and Reactivity

Stability: Stable under the recommended storage and handling conditions

Materials to Avoid: Acids, ammonium compounds, reducing agents

Polymerization: Will not occur

Thermal Decomposition: Not expected to occur

Conditions to Avoid: Avoid heat and open flame

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11. Toxicological Information:

Routes of Exposure: Skin, eyes, inhalation

Target Organs: Eyes, skin, upper respiratory tract, digestive system, central nervous system

Acute Exposure

Ingestion: Harmful or fatal if swallowed. May cause severe irritation and corrosive damage in the mouth, throat and stomach. In extremely high concentrations may cause coma, respiratory collapse and death.

Eye Contact: Severe irritation and corrosive injury

Skin Contact: May cause severe irritation and corrosive injury. May be absorbed through the skin, producing symptoms similar to ingestion or inhalation. Prolonged or repeated contact may cause drying, cracking and defatting of the skin

Inhalation: Harmful or fatal if inhaled. Inhalation of high concentrations of fumes or mists may cause severe irritation and corrosive damage to the nose, throat and upper respiratory tract. In extremely high concentrations may cause coma, respiratory collapse and death.

Dermal Sensitization: Not expected to be a skin sensitizer

Inhalation Sensitization: Not expected to be a inhalation sensitizer

Carcinogenicity: This product does not contain any of the chemicals listed on the United States National Toxicology Program Annual Reports on Carcinogens, The International Agency for Cancer Research Monographs and United State's Occupational Safety and Health Administrations 29CFR 1910.10 Subpart Z List.

Additional Toxicological Information:

Pre-existing skin, eye, respiratory and central nervous system disorders may be aggravated.

Sodium Nitrite

Acute Oral Toxicity: LD50 / rat / 180 mg/l

Acute Dermal Toxicity:

Acute Inhalation Toxicity: LC50 /rat/550 mg/m³ (24 hours)

Sodium Hydroxide

Acute Oral Toxicity: LD50 / rat / 50 mg/l

Acute Dermal Toxicity: LD50/rabbit/500mg 24 hours

Acute Inhalation Toxicity:

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12. Environmental and Ecological Information

Ecotoxicity

Sodium Nitrite

-96 hours LC50/rainbow trout/ 0.19 mg/l

Sodium Hydroxide

96 hours EC50/Ceriodaphnia/ 40 mg/l

Environmental Fate

Biodegradation: No data available on this product

Bioaccumulation: No data available on this product

Water Class Hazard (Germany): Water Hazard Class 1

13. Disposal Considerations

Waste Handling and Disposal: Handle waste according to recommendations in Section 7. Empty containers retain residue and can be dangerous. Do not cut, weld, drill or grind on or near this container. Dispose in accordance with Federal, provincial, state and local laws and regulations. If this product as supplied becomes a waste it may meet the criteria of a hazardous waste as defined by RCRA Title 40CFR Part 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

14. Transport Information

US DOT Classification Non-Bulk: 12 pints per case – ORM-D

5 gallon, 30 gallon and 55 gallon drums: UN 3219, Nitrites Inorganic, Aqueous Solution, N.O.S. (sodium nitrite), 5.1, PG III

US DOT Classification Bulk: UN 3219, Nitrites Inorganic, Aqueous Solution, N.O.S. (sodium nitrite), 5.1, PG III

IMDG Classification: UN 3219, Nitrites Inorganic, Aqueous Solution, N.O.S. (sodium nitrite), 5.1, PG III

IATA/ICAO Classification: UN 3219, Nitrites Inorganic, Aqueous Solution, N.O.S. (sodium nitrite), 5.1, PG III

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15. Regulatory Information

Hazard Symbols



Xi Irritant



US Regulations

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

State of California Proposition 65: This product does not contain any of the chemical listed on the State of California's Proposition 65 List for chemicals classified as potential reproductive or cancer causing agents.

US EPA SARA Title III and CERCLA Listings and Reportable Quantities

Reportable quantity of 100lbs/45.4kg for sodium nitrite and/or 1000lbs/454kg for sodium hydroxide

US EPA Section 311/313 Classifications

Acute (Immediate)	Chronic (Delayed)	Fire	Reactive	Pressure Generating
X			X	

US EPA Section 313 Chemicals

Sodium Nitrite and Sodium Hydroxide

US Tariff Heading Number: 3811.90.0000

Schedule B Number: 3811.90.0000

Other Regulations:

Canada: All of the ingredients of this product are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substance List

Canadian WHMIS Classifications and Symbols: Class C (Oxidizing Material); Class D!B (Materials Causing Intermediate and Serious Toxic Effects); Class (Corrosive Material)

EEC: All components are in compliance with the EC Seventh Amendment Directive 92/32/EEC

16. Other Information

For additional information call +1 314-865-4100 (outside the US and Canada) or 1-800-325-9962 inside the United States and Canada.

Although the information and recommendations set forth herein (hereafter referred to as information) are presented in good faith and believed to be accurate and factual as of the date hereof, Schaeffer Mfg. Company makes no representation as to the completeness or accuracy thereof. Information is supplied upon the condition that the person receiving the same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will Schaeffer Mfg. Company be responsible for damages of any natures whatsoever resulting from the use or reliance upon information. **No representation or warranty, either expressed or implied, of merchantability or fitness for a particular purpose is made with respect to information of the product to which the information refers. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.**