



SAFETY DATA SHEET

Section 1: Identification of the substance/mixture and company

Product Name: BOSS ZINC FREE 22

Recommended use: Hydraulic Oil

Class: Liquid

MANUFACTURER

BOSS Lubricants
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Section 2: Hazards identification

Classification of the substance or mixture: Not classified under GHS

Hazards not otherwise classified: Avoid prolonged or repeated skin contact with used fluid.

Unknown acute toxicity (GHS-US): Not classified under GHS

Section 3: Composition/information on ingredients

| Chemical Name | % | CAS # | GHS Classification |
|--|------------|------------|-------------------------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | 60 – 90 | 64742-54-7 | Aquatic Acute 1; H400 |
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | 10 – 30 | 72623-87-1 | Aquatic Chronic 1; H410 |
| | 1 – 5 | | Acute Tox. 3; H331 |
| | 0.1 – 1 | | Acute Tox. 3; H331 |
| | 0.01 - 0.1 | | Acute Tox. 4; H302 |
| | <10ppm | | Acute Tox. 3; H331 |
| | | | STOT RE 2; H373 |
| | | | Acute Tox. 4; H332 |

Components not listed are not physical or health hazards as defined in 29 CFR 1910.1200 (Hazard Communication Standard).

Section 4: First aid measures

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen.

Eyes: None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard.

Skin Contact: Wash with soap and water. Get medical attention if irritation develops or persists. Seek medical advice if symptoms persist.

Ingestion: Minimal risk of harm if swallowed. Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

Most important symptoms and effects,

Acute: Not determined





Delayed: Not determined

Note to Doctor: Aspiration during swallowing or vomiting may severely damage the lungs. If evacuation of stomach contents is necessary, use method least likely to cause aspiration.

Section 5: Firefighting measures

- Suitable and Unsuitable Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire. Do not direct a stream of water into the hot burning liquid.
- Fire and/or Explosion Hazards:** Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire.
- Fire Fighting Methods and Protection:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Use methods for the surrounding fire.
- Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

Section 6: Accidental release measures

- General Measures:** No health affects expected from the cleanup of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this SDS.
- Environmental precautions:** Do not flush to sewer. Avoid runoff into storm sewers and ditches that lead to waterways. Remove from water surface by skimming or with suitable absorbents. Do not use dispersants.
- Methods for cleaning up:** Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Dispose of according to Federal, State, Local, or Provincial regulations. Used fluid should be disposed of at a recycling center.
- Reference to other sections:** Follow all protective equipment recommendations provided in Section 8.

Section 7: Handling and storage

- Precautions for safe handling:** Mildly irritating material. Avoid unnecessary exposure.
- Conditions for safe storage:** Store in a cool dry place. Isolate from incompatible materials.
- Incompatible materials:** See Section 10.
- Specific end use(s):** Hydraulic Oil

Section 8: Exposure controls/personal protection

Control parameters

| Chemical Name | Occupational Exposure Limits | Value |
|--|------------------------------|----------------------|
| Oil mist, mineral | OSHA PEL | 5 mg/m ³ |
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | OSHA PEL | 5 mg/m ³ |
| Oil mist, mineral | ACGIH TLV-TWA | 5 mg/m ³ |
| Chemical Name | Occupational Exposure Limits | Value |
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based | ACGIH TLV-TWA | 5 mg/m ³ |
| Oil mist, mineral | ACGIH STEL | 10 mg/m ³ |





Lubricating oils (petroleum), C20 hydrotreated neutral oil-based -50, ACGIH STEL 10 mg/m³
 None. IDLH
 None. OSHA PEL-Skin Notation

Engineering Measures: Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

Respirator Type(s): None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Eye Protection: No special requirements under normal industrial use.

Skin Protection: Where use can result in skin contact, practice good personal hygiene and wear impervious gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Neoprene, Nitrile

Section 9: Physical and chemical properties

| | | | |
|---|------------------|---|----------------|
| Physical State: | Liquid | Color: | Colorless |
| Odor: | Mild | Odor threshold: | Not determined |
| pH: | Not determined | Freezing point: | Not determined |
| Boiling Point: | Not determined | Flash Point (°C): | 215 |
| Flash Point Method: | COC | Evaporation Rate: | Not determined |
| Upper Flammable/Explosive Limit, % in air: | = 10 | Lower Flammable/Explosive Limit, % in air: | = 1 |
| Flammability (solid, gas): | Not applicable | Vapor pressure: | <0.20 |
| Vapor Density: | Not determined | Relative Density: | 0.85 |
| Solubility in Water: | Negligible; 0-1% | Auto ignition Temperature: | Not determined |
| Decomposition Temperature: | Not determined | Viscosity (°C): | 21.12 |
| Volatiles, % by weight: | 0.000000 | Octanol/Water Partition Coefficient: | Not determined |

Section 10: Stability and reactivity

Reactivity: No data available.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. Moisture (will lead to product performance degradation).

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: Carbon dioxide, Carbon monoxide



Section 11: Toxicological information

- Ingestion Toxicity:** Likely to be practically non-toxic by ingestion based on animal data.
- Skin Contact:** This material is estimated to be slightly irritating (Primary Irritation Index is 0.5 - 3.0 [rabbits]). Can cause minor skin irritation, defatting, and dermatitis.
- Absorption:** Likely to be practically non-toxic based on animal data.
- Inhalation Toxicity:** No hazard in normal industrial use. Likely to be practically non-toxic based on animal data.
- Eye Contact:** This material is estimated to be non-irritating eyes (Draize score <15 [rabbits]). No hazard in normal industrial use.
- Sensitization:** Non-hazardous under Respiratory Sensitization category. No data available to indicate product or components may be a skin sensitizer.
- Mutagenicity:** No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.
- Carcinogenicity:** Not expected to cause cancer. This product meets the IP-346 criteria of <3% PAH's and is not considered a carcinogen by the International Agency for Research on Cancer.
- Reproductive and Developmental Toxicity:** No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
- Specific target organ toxicity-Single exposure:** Non-hazardous under Specific Target Organ Systemic Toxicity Single Exposure category.
- Specific target organ toxicity-Repeated exposure:** Non-hazardous under Specific Target Organ Systemic Toxicity Repeated Exposure category.
- Aspiration toxicity:** Non-hazardous under Aspiration category.
- Other information:** No data available.
- Agents Classified by IARC Monographs**
- IARC Group 1:** Not applicable
- IARC Group 2A:** Not applicable
- IARC Group 2B:** Not applicable
- National Toxicity Program (NTP) Status**
- Known Human Carcinogen:** Not applicable
- Reasonably Anticipated to be a Human Carcinogen:** Not applicable

Section 12: Ecological information

- Acute Aquatic Ecotoxicity:** Non-hazardous under Aquatic Acute Environment category.
- Chronic Aquatic Ecotoxicity:** Non-hazardous under Aquatic Chronic Environment category.
- Persistence and degradability:** Biodegrades slowly.
- Bioaccumulative potential:** Bioconcentration may occur.
- Mobility in soil:** This material is expected to have essentially no mobility in soil. It absorbs strongly to most soil types.
- Results of PBT and vPvB assessment:** No data available.
- Other adverse effects:** Not determined



Section 13: Disposal considerations

Disposal Methods: Dispose of according to Federal, State, Local, or Provincial regulations. Recycle used oil.
Waste Description for Spent Product: Spent or discarded material is non-hazardous according to environmental regulations.
Contaminated packaging: Recycle containers whenever possible.

Section 14: Transport information

DOT Basic Description: Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO).

Section 15: Regulatory information

Chemical Inventories

U.S. State Restrictions: Not applicable

WHMIS: Uncontrolled product according to WHMIS classification criteria.

| Chemical Name | Regulation | CAS # | % |
|---------------|------------|----------|------------|
| None. | CERCLA | | |
| Diphenylamine | SARA 313 | 122-39-4 | 0.01 - 0.1 |
| None. | SARA EHS | | |

U.S. State Regulations TSCA 12b

| Chemical Name | Regulation | CAS # | % |
|---------------|------------------------------------|-------|---|
| None. | California Prop 65- Cancer | | |
| None. | California Prop 65- Dev. Toxicity | | |
| None. | California Prop 65- Reprod -fem | | |
| None. | California Prop 65- Reprod-male | | |
| None. | Massachusetts RTK List | | |
| None. | New Jersey RTK List | | |
| None. | Pennsylvania RTK List | | |
| None. | Rhode Island RTK List | | |
| None. | Minnesota Hazardous Substance List | | |

HMIS Ratings:

Health: 1
 Fire: 1
 Reactivity: 0

NFPA Ratings:

Health: 1
 Fire: 1

PPE: B Reactivity: 0
 KEY: 0 - Least 1 - Slight 2 - Moderate 3 - High 4 - Extreme





Section 16: Other information

Revision Date 10/28/2015

Supersedes: None

References:

ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
CFR: Code of Federal Regulations
DOT: United States Department of Transportation
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
IATA: International Air Transportation Association
IDLH: Immediately Dangerous to Life or Health
IMDG: International Maritime Dangerous Goods
NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
RTK: Right-to-Know
SARA: Superfund Amendments and Reauthorization Act
STEL: Short-term Exposure Limit
TLV: Threshold limit value
TSCA: Toxic Substances Control Act
TWA: Time weighted average
UN: United Nations
WHMIS: Workplace Hazardous Materials Information System

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