



Safety Data Sheet

May be used to comply with

OSHA's Hazard Communication Standard 29 CFR 1910.1200.

This standard must be consulted for specific requirements.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Type S2 Grease

Drawing Number: 58-97-1235

Issue Date: March 2015

Supersedes Date: July 2011

Milwaukee Electric Tool Corporation

13135 West Lisbon Road

Brookfield, Wisconsin 53005

www.milwaukeetool.com

Company Phone Number: 262-781-3600 or

1-800-729-3878

Emergency Contact Number: 1-800-424-9300

Chemtrec: United States only

Recommended intended purpose to be used as a lubricant

SECTION 2: HAZARDS IDENTIFICATION

Health	Environmental	Physical
Eye Irritation: Category 2A	Acute Toxicity: No classified hazards	Flammable liquid: No classified hazards
Skin Irritation: Category 2	Chronic Toxicity: No classified hazards	
Acute Toxicity, Oral: No classified hazards		
Acute Toxicity, Inhalation: No classified hazards		

GHS Label



Hazard Statements	Precautionary Statements
Causes serious eye irritation	IF IN 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 advice/attention.
	Wear protective gloves/protective clothing/eye protection/face protection.
	Wash hands thoroughly after handling.
Causes skin irritation	IF ON SKIN: wash with plenty of soap and water.
	IF skin irritation occurs: get medical attention/advice.
	Avoid breathing dust/fume/gas/mist/vapours/spray.
	Wash thoroughly after handling.
	Wear protective gloves/protective clothing/eye protection/face protection.
	Take off contaminated clothing and wash before reuse.
	Specific treatment (see this label).
May be harmful if swallowed	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

May be harmful if inhaled	IF INHALED: call a POISON CENTER or doctor/physician if you feel unwell.
	Use personal protective equipment as required.

Classified Hazards

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200. This SDS contains valuable information for the safe handling and proper use of this product. Save this SDS for future reference.

Other Hazards

None known

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Components listed in this section may contribute to the potential hazards associated with exposure to the concentrate. The product may contain additional non-hazardous or trade-secret components.

Chemical characterization

Lubricating grease: thickening agent, additives and solid lubricants in highly-refined mineral oil

Chemical Name	CAS #	Concentration ¹
Mineral oil	Proprietary	<5
Synthetic ester	Proprietary	<10
Non-Hazardous Materials	N/A	Balance
Note: This product has been evaluated and does not require any hazard warning label under the OSHA Hazard Communication Standard.		
¹ All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume		

Carcinogenic Components: This product contains no carcinogens.

SECTION 4: FIRST AID MEASURES

EYE CONTACT:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. If symptoms persist, contact a physician.

SKIN CONTACT:

Remove product from the skin by washing with a mild soap and water. Contaminated clothing should be removed to prevent prolonged exposure. If symptoms of exposure persist, contact physician. If product is injected into or under the skin, seek treatment immediately. (see Note to Physician)

INHALATION:

If signs or symptoms of overexposure occur, remove the person to fresh air. If symptoms persist, seek medical attention.

INGESTION:

First aid is not normally required; however, if symptoms of ingestion persist, seek medical attention.

NOTE TO PHYSICIAN:

When using high-pressure equipment, injection of product under the skin can occur. In this case, the casualty should be sent immediately to hospital. Do not wait for symptoms to develop. High-pressure hydrocarbon injection injuries may produce substantial necrosis of underlying tissue despite an innocuous appearing external wound. These injuries often require extensive emergency surgical debridement and all injuries should be evaluated by a specialist in order to assess the extent of injury. Early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

SECTION 5: FIRE FIGHTING MEASURES

NFPA 704 Hazard Class

No Data

HMIS

	0 (Minimal)
	1 (Slight)
	2 (Moderate)
	3 (Serious)
	4 (Severe)

EXTINGUISHING MEDIA:

In accordance with NFPA guidance, dry chemical, foam, or CO2 fire extinguishers are all acceptable. Note that while water fog extinguishers are also acceptable, **DO NOT** apply a direct stream of water onto burning product because it may cause spreading and increase fire intensity.

UNUSUAL FIRE & EXPLOSION HAZARDS:

No further data known.

FIRE-FIGHTING PROCEDURES AND EQUIPMENT:

Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage. See Section 8 of the MSDS for other PPE to be worn as conditions warrant.

See Section 9 for Flammable Properties including Flash Point and Flammable (explosive) limits.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Clean-Up Measures:

Important: As with any spill or leak, before responding ensure that you are familiar with the potential hazards and recommendations of the MSDS. Appropriate personal protective equipment must be worn. See Section 8 of this MSDS for PPE recommendations.

If possible, safely contain the spill with dikes or other spill response equipment appropriate for petroleum or organic material releases. Take measures to prevent spreading of product. Note that while product will ignite it will not readily burn. However, as a precaution eliminate ignition sources. Prevent from entering sewers or waterways. Large volumes may be transferred to an appropriate container for proper disposal. Small volumes or residues may be soaked up with absorbents. Spill response materials should be collected for proper disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING:

As with any industrial chemical, handle the product in a manner that minimizes exposure to practicable levels. Prior to handling, consult Section 8 of this MSDS to evaluate personal protective equipment needs. Open containers slowly to relieve any pressure. Follow all other standard industrial hygiene practices.

Empty containers may contain product residue. All safety precautions taken when handling this product should also be taken when handling empty drums and containers. Keep containers closed when not in use.

Product residue in empty containers is combustible but will not readily burn. NOTE however, that excessive heating or cutting of empty containers may create an ignitions source sufficient to start a fire and in extreme cases, cause an explosion.

STORAGE:

Protect product quality by storing indoors and away from extreme temperatures. Close all containers when not in use.

SPECIAL COMMENTS:

No further data known.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

Chemical Name	OSHA PEL	ACGIH TLV	California Prop 65 Reg. Y/N	IARC/NTP Y/N
Mineral Oil	TWA 5mg/m ³ *	TWA 5mg/m ³ *	N	N
Synthetic Ester	N/A	N/A	N	N

Note: This product has been evaluated and does not require any hazard warning label under the OSHA Hazard Communication Standard.

* As oil mist, if generating

EYE PROTECTION

Wear eye protection appropriate to prevent eye exposure. Where splashing is not likely, chemical safety glasses with side shields are recommended. Where splashing may occur, chemical goggles or full face shield is recommended.

SKIN PROTECTION:

Gloves are not normally needed during normal conditions of use. If health effects are experienced, oil or chemical resistant gloves such as butyl or nitrile are recommended.

Where splashing or soaking is likely, wear oil or chemical resistant clothing to prevent exposure.

RESPIRATORY PROTECTION:

A respirator may be worn to reduce exposure to vapors, dust, or mist. Select a NIOSH/MSHA approved respirator appropriate for the type and physical character of the airborne material. A self-contained breathing apparatus is recommended in all situations where airborne contaminant concentration has not been confirmed to be below safe levels. Respirator use should comply with the OSHA Respirator Protection Standard found in CFR 1910.134.

ENGINEERING CONTROLS:

Normal general ventilation is expected to be adequate. It is recommended that ventilation be designed in all instances to maintain airborne concentrations at lowest practicable levels. Ventilation should at a minimum, prevent airborne concentrations from exceeding any exposure limits listed in Section 2 of this MSDS.

The user may wish to refer to 29 CFR 1910.1000 (d) (2) and the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" (Appendix C) for the determination of exposure limits of mixtures. An industrial hygienist or similar professional may be consulted to confirm that the calculated exposure limits apply.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Data represent typical values and are not intended to be specifications. NA=Not Applicable; ND=Not Determined

Physical state: Semi Solid	Flammability (solid, gas): ND
Colour: Green	Upper Explosive Limits (vol % in air): ND
Odor: Petroleum	Lower Explosive Limits (vol % in air): ND
Odor Threshold: ND	Vapor pressure: ND
pH: ND	Vapor density: ND
Melting/Freezing Point: ND	Relative density: ND
VOC Content: ND	Solubility: Insoluble
Boiling Point: ND	Partition Coefficient: ND
Flash Point: 450 °F	Auto-ignition Temperature: ND
Evaporation Rate: ND	Decomposition Temperature: ND
Specific Gravity: 0.870	Viscosity: ND

SECTION 10: STABILITY AND REACTIVITY

INCOMPATIBLE MATERIALS:

This product is incompatible with strong oxidizing agents.

DECOMPOSITION PRODUCTS MAY INCLUDE:

Thermal decomposition products are dependent on combustion conditions. A complex mixture of airborne solid, liquid, particulates and gasses may evolve when the material burns. Combustion by-products may include: oxides of sulfur, oxides of carbon, traces of hydrogen sulfide, incompletely burned hydrocarbons as fumes and smoke.

CONDITIONS TO AVOID:

Avoid contact with incompatible materials and exposure to extreme temperatures.

POLYMERIZATION:

This product is not expected to polymerize.

CHEMICAL STABILITY:

This product is stable.

REACTIVITY:

Stable under normal ambient and anticipated conditions of use.

SECTION 11: TOXICOLOGY INFORMATION

LIKELY ROUTES OF EXPOSURE: **Inhalation, Eye and Skin contact**

ACUTE SYMPTOMS AND EFFECTS:

Inhalation:	No further toxicological data known
Eye contact:	No further toxicological data known
Skin contact:	No further toxicological data known
Ingestion:	No further toxicological data known

OTHER:

Unknown toxicity (%): Oral 25.4; Dermal 28.4; Inhal (dust/mist) 29.9; Inhal (vapor) 100.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

This product has not been evaluated for ecotoxicity. As with any industrial chemical, exposure to the environment should be prevented and minimized wherever possible.

TOXICITY:

No data available

PERSISTENCE AND DEGRADABILITY (BIOPERSISTENCY & BIODEGRADABILITY):

No data available

POTENTIAL OF BIOACCUMULATION:

No data available

MOBILITY IN SOIL:

No data available

OTHER ADVERSE EFFECTS:

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Ensure that collection, transport, treatment, and disposal of waste product, containers and rinsate complies with all applicable laws and regulations. Note that use, mixture, processing, or contamination of the product may cause the material to be classified as a hazardous waste. It is the responsibility of the product user or owner to determine at the time of disposal, whether the product is regulated as a hazardous waste.

SECTION 14: TRANSPORT INFORMATION

DOT HAZARDOUS MATERIAL INFORMATION:

Not otherwise DOT regulated.

SECTION 15: REGULATORY INFORMATION

FEDERAL REGULATIONS:

SARA 313:

This product contains NONE of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Clean Water Act / Oil Pollution Act:

This product contains mineral oil and is subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

CERCLA Reportable Quantity:

Any components listed below have been assigned a reportable quantity (RQ) by the Federal EPA. Releases of the product into the environment that exceed the RQ for a particular component must be reported to the National Response Center at 1-800-424-8802.

Toxic Substance Control Act:

The components of this product are listed on the TSCA Inventory.

Ozone Depleting Substances:

This product contains no ozone depleting substances as defined by the Clean Air Act.

Hazardous Air Pollutants:

Any components listed below are defined by the Federal EPA as hazardous air pollutants.

STATE REGULATIONS:

CALIFORNIA PROP 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

This product contains mineral oil, and as used, may be regulated by the state used oil regulations. Check with the appropriate state agency to determine whether such a regulation exists.

No further data known.

SECTION 16: OTHER INFORMATION

ABBREVIATIONS:

- TSCA Toxic Substance Control Act
- ICAO International Civil Aviation Organization
- IMDG International Maritime Dangerous
- OSHA Occupational Safety and Health
- IARC/NTP International Agency for Research on Cancer/National Toxicology Program
- SARA Superfund Amendments and Reauthorization Act of 1986
- ACGIH American Conference of Governmental Industrial Hygienists
- NIOSH/MSHA National Institute for Occupational Safety Health/
Mine Safety and Health Administration
- WHMIS Workplace Hazardous Materials Information System

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