Material Safety Data Sheet

GreensCare 46

Section 1 Chemical Product and Company Information

Manufactured exclusively for Jacobsen, A Textron Company, by

RSC Bio Solutions
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Mentor, OH
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PRODUCT TRADE NAME:	GreensCare 46
CAS NO:	Not applicable for mixtures.
SYNONYMS:	None.
GENERIC/CHEMICAL NAME:	Mixture.
PRODUCT TYPE:	Biodegradable Hydraulic Fluid
PREPARATION/REVISION DATE:	02/25/14
TRANSPORTATION EMERGENCY PH NO:	1-800-661-3558

Section 2 Composition/Information On Ingredients

NAME
Natural ester base oil
Proprietary ashless hydraulic additive
Fluidity modifier
Blue dye

This material has no known hazards under applicable laws.

Section 3 Hazards Identification

PRINCIPAL HAZARDS: This material has no known hazards.

See Section 11 for complete health hazard information.

Section 4 First Aid Measures

ORAL:	DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.
EYE:	Flush with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
SKIN:	Wash with soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse.
INHALATION:	Remove exposed person to fresh air if adverse effects are observed.
ADDITIONAL:	Note to physician: Treat symptomatically.

Section 5 Firefighting Measures

FLASH POINT (Typical):	515 °F (270 °C) Typical (COC)
UPPER FLAMMABLE LIMIT:	Not Determined.
LOWER FLAMMABLE LIMIT:	Not Determined.
EXTINGUISHING MEDIA:	CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.
SPECIAL FIREFIGHTING PROCEDURES:	Recommend wearing self-contained breathing apparatus. Water may cause splattering. Material will float on water.
UNUSUAL FIRE & EXPLOSION HAZARDS:	Toxic fumes, gases or vapors may evolve on burning.
AUTOIGNITION TEMPERATURE:	Not Determined.
EXPLOSION DATA:	Material does not have explosive properties.

Section 6 Accidental Release Measures

SPILL PROCEDURES: Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Ventilate area if spilled in confined space or other poorly ventilated areas. Prevent entry into sewers and waterways. 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.

Section 7 Handling and Storage

HANDLING PROCEDURES: Keep containers closed when not in use. Wash thoroughly after handling. Empty container contains product residue which may exhibit hazards of product.

STORAGE PROCEDURES: No special storage precautions required.

Section 8 Exposure Controls/Personal Protection

VENTILATION PROCEDURE:	Use with adequate ventilation.
GLOVES PROTECTION:	Use nitrile or neoprene gloves.
EYE PROTECTION:	Safety Glasses.
RESPIRATORY PROTECTION:	Under normal use conditions, respirator is not usually required. Use NIOSH/MSHA approved disposable dust/mist mask if the recommended exposure limit is exceeded.
CLOTHING RECOMMENDATION:	Long sleeve shirt is recommended.

Section 9 Physical and Chemical Properties

VAPOR PRESSURE:	Not Determined.
PH:	Not Determined.
SPECIFIC GRAVITY:	0.92 at 15.6 Deg C
WATER SOLUBILITY:	Insoluble.
PERCENT VOLATILE:	Unknown.
VAPOR DENSITY:	Not Determined.
EVAPORATION RATE:	Not Determined.
ODOR:	Mild
APPEARANCE:	Golden liquid
VISCOSITY:	46 Centistokes at 40 Deg C (Typical)
ODOR THRESHOLD:	Unknown.
BOILING POINT :	Not Determined.
FREEZING POINT:	Not Determined.
MOLECULAR WEIGHT:	Not Determined

Section 10 Stability And Reactivity

STABILITY:	Material is normally stable at moderately elevated temperatures and pressures.
INCOMPATIBILITY:	Oxidizing agents.
POLYMERIZATION:	Will not occur.
THERMAL DECOMPOSITION:	Smoke, carbon monoxide, aldehydes and other products of incomplete combustion.

Section 11 Toxicological Information

ORAL TOXICITY:	The LD50 in rats is > 5000 mg/kg. Based on data from components or similar materials.
EYE IRRITATION:	Not expected to cause eye irritation. Based on data from components or similar materials.
SKIN IRRITATION:	Not expected to be a primary skin irritant. 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, defatting and cracking of the skin.
DERMAL TOXICITY:	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.
INHALATION TOXICITY:	No data available to indicate product or components may be a toxic inhalation hazard.

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 similar to that observed with mineral oil. Based on data from components or similar materials. Under good industrial hygiene practices where all exposure limits are observed, respiratory irritation should not be a problem.
DERMAL SENSITIZATION:	No data available to indicate product or components may be a skin sensitizer.
INHALATION SENSITIZATION:	No data available to indicate product or components may be respiratory sensitizers.
CHRONIC TOXICITY:	No data available to indicate product or components present at greater than 1% are chronic health hazards.
CARCINOGENICITY:	No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.
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.
OTHER:	No other health hazards known.
EXPOSURE LIMITS:	EXPOSURE LIMITS: Contains natural ester base oil. Under conditions which may generate mists, observe the OSHA PEL of 15 mg per cubic meter.

Section 12 Ecological Information

FRESHWATER FISH TOXICITY:	Fathead minnow, 96h LC50, ppm >10,000 EPA Test Method 797.1400
FRESHWATER INVERTEBRATES TOXICITY:	Daphnia magna, 48h, EC50, ppm >10,000 EPA Test Method 797.1300
ALGAE TOXICITY:	Algae EC50, ppm 100 – 1000 EPA Test Method 797.1050
BACTERIA TOXICITY:	Sludge respiration inhibition, EC50, ppm >10,000
ENVIRONMENTAL FATE:	Product shows a biodegradability of >60% in 28 days as measured by OECD 301B, ASTM D5864 (Mod. Sturm), and ASTM D7373 test procedures.

Section 13 Disposal Considerations

WASTE DISPOSAL:	Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA. Waste management should be in compliance with federal, state, and local laws.

Section 14 Transport Information

U.S.DOT BULK SHIPPING DESCRIPTION:	Not applicable.
U.S.DOT NON-BULK SHIPPING DESCRIPTION:	Not applicable.
IMDG SHIPPING DESCRIPTION:	Not applicable.
ICAO SHIPPING DESCRIPTION:	Not applicable.
ADR/RID HAZARD CLASS:	Not applicable.

Section 15 Regulatory Information

U.S. TSCA INVENTORY:	All components of this material are on the US TSCA Inventory.
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:	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.
CERCLA HAZARDOUS SUBSTANCES:	None known.
CAL. PROP. 65:	This product does not contain chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components.
U.S. FUEL REGISTRATION:	Not applicable.
U.S. DEPT. OF AGRICULTURE:	This product has not been filed with the USDA to support H2 approvals.
EEC EINECS:	All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC.
JAPAN MITI:	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.

Section 16 Other Information

NFPA CODE:	Health: 1	Fire: 1	Reactivity: 0
HMIS CODE:	Health: 1	Fire: 1	Reactivity: 0

PRECAUTIONARY LABELS: This material has no known hazards.

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