



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name Works Thumper Synthetic Ester 4T Engine Oil 10W-60
Product Code 99551
MSDS Number 6777
Version # 1.0
Revision date 08-29-2014
Product use Engine Oil
Manufacturer information Bel-Ray Company, Inc.
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2. Hazards Identification

Emergency overview Harmful in contact with eyes. Prolonged exposure may cause chronic effects.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.
Eyes Eye contact may result in corneal injury. Contact may irritate or burn eyes. Do not get this material in contact with eyes.
Skin Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Avoid contact with the skin.
Inhalation Prolonged inhalation may be harmful. Avoid breathing dust/fume/gas/mist/vapors/spray.
Ingestion Components of the product may be absorbed into the body by ingestion. Do not ingest.
Target organs Eyes. RESPIRATORY SYSTEM. Skin.
Chronic effects Conjunctiva. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms Corneal damage. Conjunctivitis. Defatting of the skin. Skin irritation. Rash.
Potential environmental effects May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
White Mineral Oil (petroleum)	8042-47-5	10 - 20
Other components below reportable levels		80 - 90

4. First Aid Measures

First aid procedures
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin contact Wash off with warm water and soap. Get medical attention if irritation develops and persists.
Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Ingestion

Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. If ingestion of a large amount does occur, call a poison control center immediately. Never give liquid to an unconscious person.

Notes to physician

Symptoms may be delayed.

General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties

Not flammable by OSHA criteria. Not combustible by OSHA criteria.

Extinguishing media

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂). Dry chemicals.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire. Water.

Protection of firefighters

Protective equipment and precautions for firefighters

Wear suitable protective equipment.

Fire fighting equipment/instructions

Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Hazardous combustion products

May include oxides of nitrogen. Carbon monoxide and carbon dioxide.

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods for containment

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up

Should not be released into the environment.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Scrub the area with detergent and water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSDS.

7. Handling and Storage

Handling

DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged or repeated contact with skin. Use only in well-ventilated areas. Avoid prolonged exposure. Avoid release to the environment.

Storage

Keep away from heat and sources of ignition. Store in a well-ventilated place. Keep container tightly closed. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
White Mineral Oil (petroleum) (8042-47-5)	TWA	5 mg/m ³	Inhalable fraction.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
White Mineral Oil (petroleum) (8042-47-5)	PEL	5 mg/m3	Mist.

Engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Eye / face protection Do not get in eyes. Chemical goggles are recommended. Eye wash fountain is recommended.

Skin protection Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygiene considerations Do not get in eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Liquid. Liquid.
Physical state	Liquid.
Form	Liquid. Liquid.
Color	Amber. Amber.
Odor	Slight. Petroleum Slight. Petroleum
Odor threshold	Not available.
pH	Not available.
Vapor pressure	0.000011 hPa estimated
Density	853.00 kg/m3
Vapor density	Not available.
Boiling point	600.08 °F (315.6 °C) estimated
Melting point/Freezing point	Not available.
Solubility (water)	Not available.
Solubility (other)	Not available.
Specific gravity	0.906853038 estimated
Relative density	Not available.
Flash point	381.20 °F (194.00 °C) Pensky-Martens Closed Cup
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	500 °F (260 °C) estimated
VOC	< 1 %
Other data	
Flammability class	Combustible IIIB estimated
Kinematic viscosity	169 cSt
Kinematic viscosity temp	104 °F (40 °C)

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
Incompatible materials	Not available.

Hazardous decomposition products

Nitrogen oxides (NOx). At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

11. Toxicological Information

Toxicological data

Product	Species	Test Results
Works Thumper Synthetic Ester 4T Engine Oil 10W-60 (Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	3784.2952 mg/kg, estimated
<i>Inhalation</i>		
LC50	Rat	9460.7383 mg/m ³ , estimated
<i>Oral</i>		
LD50	Rat	60606.0625 g/kg, estimated
		3332.7778 mg/kg, estimated

* Estimates for product may be based on additional component data not shown.

Local effects	Components of the product may be absorbed into the body through the skin. Contact may irritate or burn eyes.
Chronic effects	Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Due to lack of data the classification is not possible.

ACGIH Carcinogens

White Mineral Oil (petroleum) MINERAL OIL, EXCLUDING A4 Not classifiable as a human carcinogen.
METAL WORKING FLUIDS, PURE, HIGHLY AND SEVERELY
REFINED, INHALABLE FRACTION (CAS 8042-47-5)

IARC Monographs. Overall Evaluation of Carcinogenicity

MINERAL OILS, HIGHLY-REFINED (CAS 8042-47-5) 3 Not classifiable as to carcinogenicity to humans.

Skin corrosion/irritation	Due to lack of data the classification is not possible.
Mutagenicity	Due to lack of data the classification is not possible.
Reproductive effects	Due to lack of data the classification is not possible.

12. Ecological Information

Ecotoxicological data

Product	Species	Test Results
Works Thumper Synthetic Ester 4T Engine Oil 10W-60 (Mixture)		
Crustacea	EC50 Daphnia	29696.9688 mg/l, 48 hours, estimated

* Estimates for product may be based on additional component data not shown.

Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	Not available.

13. Disposal Considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes

Delayed Hazard - Yes

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

Section 302 extremely hazardous substance

No

Section 311 hazardous chemical

No

Inventory status

Country(s) or region

Inventory name

On inventory (yes/no)*

Canada

Non-Domestic Substances List (NDSL)

Yes

China

Inventory of Existing Chemical Substances in China (IECSC)

Yes

Korea

Existing Chemicals List (ECL)

Yes

United States & Puerto Rico

Toxic Substances Control Act (TSCA) Inventory

Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

White Mineral Oil (petroleum) (CAS 8042-47-5)

Listed.

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 1*

Flammability: 1

Physical hazard: 0

NFPA ratings

Health: 1

Flammability: 1

Instability: 0

Disclaimer

Bel-Ray Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

This data sheet contains changes from the previous version in section(s):

Product and Company Identification: Product and Company Identification

Composition / Information on Ingredients: Ingredients

Physical & Chemical Properties: Multiple Properties