

MATERIAL SAFETY DATA SHEET

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Solvent
Solvent 3139

Synonyms: Stoddard Solvent; Paint Thinner; Regular Mineral Spirits; CASRN 8052-41-3.

Product Use: Solvent.

Manufacturer/Supplier: Boss Lubricants
6303 30 Street SE
Calgary, Alberta
T2C 1R4

Phone Number: 403-279-2223

Emergency Phone: 800-844-9457

Date of Preparation: September 15, 2014

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER
COMBUSTIBLE LIQUID AND VAPOR. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. CANCER HAZARD – CAN CAUSE CANCER. IRRITATING TO EYES AND SKIN.

Colour: Colourless.
Physical State: Liquid.
Odor: Petroleum/solvent.

WHMIS	Personal Protection Equipment	TDG (Ground)
		

Potential Health Effects: See Section 11 for more information.

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion. Skin absorption.

Eye: Irritating to eyes. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin: Irritating to skin. Signs/symptoms may include localized redness, swelling, and itching. Naphthalene may be absorbed through the skin in harmful amounts.



Ingestion: Harmful or fatal: may cause lung damage if swallowed. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Naphthalene may cause liver and kidney damage. May cause blood abnormalities, methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, and death.

Inhalation: May cause respiratory tract irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause headache, dizziness, confusion, loss of appetite and loss of consciousness. High vapour concentrations of Xylene are anesthetic and central nervous system depressants. Hemolytic anemia (destruction of red blood cells) is the primary health concern for humans exposed to Naphthalene for either short or long periods of time. Other effects may include nausea, profuse perspiration, vomiting, kidney damage and liver damage.

Chronic Effects: See Section 11 for more information.

Medical Conditions Aggravated By Exposure: Glucose-6-phosphate dehydrogenase deficiency.

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Blood. Liver. Kidneys. Kidneys. Nervous system.

Potential Environmental Effects: See Section 12 for more information.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	Wt. %
Stoddard solvent	8052-41-3	100
Nonane	111-84-2	1 - 5
Benzene, 1,2,4-trimethyl-	95-63-6	1 - 5
Xylenes	1330-20-7	0.1 - 0.9
Benzene, ethyl-	100-41-4	0.1 - 0.5
Naphthalene	91-20-3	0.1 - 0.5

Section 4: FIRST AID MEASURES

Eye Contact: Flush eyes with plenty of water for at least 15 minutes. If signs/symptoms persist, get medical attention.

Skin Contact: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. If signs/symptoms develop, get medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Inhalation: Remove person to fresh air. If breathing has stopped apply artificial respiration. If signs/symptoms develop, get medical attention.



- General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
- Note to Physicians:** Symptoms may not appear immediately. Individuals with a glucose-6-phosphate dehydrogenase deficiency are hypersensitive to the effects of Naphthalene. Naphthalene is known to cause carcinogenicity, headache, confusion, excitement, nausea, vomiting, abdominal pain, profuse sweating; jaundice;

Section 5: FIRE FIGHTING MEASURES

Flammability: Combustible liquid by WHMIS criteria. Combustible liquid by OSHA criteria. Released vapours may form flammable/explosive mixtures at or above the flash point. Vapours may travel considerable distances to ignition sources and cause a flash fire. Cool containing vessels with water jet in order to prevent pressure build-up, auto-ignition or explosion.

Means of Extinction

Suitable Extinguishing Media: Dry chemical, foam, or carbon dioxide.

Unsuitable Extinguishing Media: Do not use water jet. Water may not be an effective medium to extinguish fire.

Products of Combustion: Oxides of carbon.

Protection of Firefighters: Keep upwind of fire. Wear full firefighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Explosion Data

Sensitivity to Mechanical Impact: This material is not sensitive to mechanical impact.

Sensitivity to Static Discharge: This material is sensitive to static discharge at temperatures above the flash point.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Evacuate all unnecessary personnel. Stay upwind. Eliminate all ignition sources. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental Precautions: Keep out of drains, sewers, ditches, and waterways.

Methods for Containment: Stop leak if without risk. Contain spill and absorb with inert absorbent. Large pools may be covered with foam to prevent vapour evolution. Do not flush to sewer or allow to enter waterways.

Methods for Clean-Up: Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. Large spills should be removed with explosion proof vacuum equipment.

Other Information: Dispose of in accordance with all federal, provincial and local regulations. Comply with federal, provincial, and local requirements for spill and/or release notification.

Section 7: HANDLING AND STORAGE

Handling:

Do not swallow. Do not get in eyes, or on skin. All equipment used when handling the product must be grounded. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking. See Section 8 for information on Personal Protective Equipment.

Storage:

Store in cool, dry, well-ventilated area away from incompatible materials, heat, and sources of ignition. Open containers slowly in order to control possible pressure release. All storage containers and pumping equipment should be grounded. Empty containers may contain flammable/explosive residues or vapours, do not reuse empty containers without commercial cleaning or reconditioning by a qualified or licensed contractor. Keep out of the reach of children.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Stoddard solvent

(8052-41-3) **ACGIH:** 100 ppm (TWA); (1980)
 (8052-41-3) **OSHA:** 500 ppm (TWA), 2900 mg/m³ (TWA);
 100 ppm (TWA) [Vacated]

Nonane

(111-84-2) **ACGIH:** 200 ppm (TWA); (1992)
 (111-84-2) **OSHA:** 200 ppm (TWA) [Vacated]

Benzene, 1,2,4-trimethyl-

(95-63-6) **ACGIH:** 25 ppm (TWA); (1970)
 (95-63-6) **OSHA:** 25 ppm (TWA) [Vacated]

Xylenes

(1330-20-7) **ACGIH:** 100 ppm (TWA); 150 ppm (STEL); A4; BEI (1992)
 (1330-20-7) **OSHA:** 100 ppm (TWA), 435 mg/m³ (TWA);
 150 ppm (STEL) [Vacated]

Benzene, ethyl-

(100-41-4) **ACGIH:** 20 ppm (TWA); A3; BEI (2010)
 (100-41-4) **OSHA:** 100 ppm (TWA), 435 mg/m³ (TWA);
 125 ppm (STEL) [Vacated]

Naphthalene

(91-20-3) **ACGIH:** 10 ppm (TWA); 15 ppm (STEL); Skin; A4 (1992)
 (91-20-3) **OSHA:** 10 ppm (TWA), 50 mg/m³ (TWA);
 15 ppm (STEL) [Vacated]

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

C: Ceiling

Engineering Controls:	Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits. Use explosion-proof ventilation equipment.
Personal Protective Equipment	
Eye/Face Protection:	Wear safety glasses. Ensure that eyewash stations are close to the workstation location.
Hand Protection:	Wear impervious gloves. Chemical resistant gloves are recommended. Consult manufacturer specifications for further information.
Skin and Body Protection:	Wear suitable protective clothing. Flame resistant clothing such as Nomex ® is recommended in areas where material is stored or handled.
Respiratory Protection:	If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator or self-contained breathing apparatus (SCBA) should be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air purifying respirators.
General Hygiene Considerations:	Handle according to established industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colourless liquid.
Colour:	Colourless.
Odor:	Petroleum/solvent.
Odor Threshold:	Not available.
Physical State:	Liquid.
pH:	Not available.
Viscosity:	Not available.
Melting Point:	-76 °C
Boiling Point:	159 to 195 °C
Flash Point:	43 °C (TCC)
Evaporation Rate:	0.14 (n-BuAc = 1)
Lower Flammability Limit:	0.8 %
Upper Flammability Limit:	5.6 %

Vapor Pressure:	0.285 kPa (2.14 mmHg) @ 20 °F; 0.9 kPa (6.75 mmHg) @ 38°C
Vapor Density:	4.9 (Air = 1) @ 101 kPa
Specific Gravity:	0.78 (Water = 1) @ 15 °C
Density:	0.788 kg/L at 15°C
Solubility in Water:	Negligible.
Coefficient of Water/Oil Distribution:	Not available.
Auto-ignition Temperature:	260 °C
Percent Volatile, wt. %:	Volatile.
VOC content, wt. %:	Not available.

Section 10: STABILITY AND REACTIVITY

Stability:	Stable under normal storage conditions.
Conditions of Reactivity:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Incompatible Materials:	Strong oxidizers.
Hazardous Decomposition Products:	Not available.
Possibility of Hazardous Reactions:	None known.

Section 11: TOXICOLOGICAL INFORMATION EFFECTS OF ACUTE EXPOSURE Component Toxicity

Component	CAS No.	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀
Stoddard solvent	8052-41-3	Not available.	Not available.	Not available.
Nonane	111-84-2	Not available.	Not available.	3200 ppm, (rat), 4H
95-63-6	5000 mg/kg, (rat)	Not available.	18000 mg/m ³ , (rat), 4H	
Trimethyl-Xylenes	1330-20-7	>1700 mg/kg, (rat)	4300 mg/kg, (rabbit)	5000 ppm, (rat), 4H
Benzene, ethyl-Naphthalene	100-41-4 91-20-3	3500 mg/kg, (rat) 490 mg/kg, (rat)	17800 µl/kg, (rabbit) >2500 mg/kg, (rat)	Not available. >340 mg/m ³ , (rat), 1H

Eye:	Irritating to eyes. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
Skin:	Irritating to skin. Signs/symptoms may include localized redness, swelling, and itching. Naphthalene may be absorbed through the skin in harmful amounts.

- Ingestion:** Harmful or fatal: may cause lung damage if swallowed. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Naphthalene may cause liver and kidney damage. May cause blood abnormalities, methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, and death
- Inhalation:** May cause respiratory tract irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause headache, dizziness, confusion, loss of appetite and loss of consciousness. High vapour concentrations of Xylene are anesthetic and central nervous system depressants. Hemolytic anemia (destruction of red blood cells) is the primary health concern for humans exposed to Naphthalene for either short or long periods of time. Other effects may include nausea, profuse perspiration, vomiting, kidney damage and liver damage.
- Skin Sensitization:** Not hazardous by OSHA/WHMIS criteria. **Respiratory**
- Sensitization:** Not hazardous by OSHA/WHMIS criteria.

EFFECTS OF CHRONIC EXPOSURE

- Target Organs:** Skin. Eyes. Gastrointestinal tract. Respiratory system. Blood. Liver. Kidneys. Nervous system.
- Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation. Prolonged or repeated skin contact with Nonane may cause liver and kidney damage and cause blood effects. 1,2,4-Trimethylbenzene may cause CNS changes, asthmatic bronchitis, and changes in the blood such as anemia or thrombocytopenia (i.e. low thrombocyte count that may affect the blood's ability to clot). Xylene can damage bone marrow thus causing anemia, and can also damage the liver and kidneys, as well as the central and peripheral nervous systems. Repeated exposure of the eyes to high concentrations of Xylenes vapour may cause reversible eye damage. Ethylbenzene may cause changes in the blood such as Leukopenia or Lymphocytosis (i.e. damaging effects on the body's white blood cells). In addition, this substance may cause liver and kidney damage after high exposures.
- Carcinogenicity:** Hazardous by OSHA/WHMIS criteria. May cause cancer.

Component Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Prop 65
Stoddard solvent	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.
Nonane	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.
Benzene, 1,2,4-trimethyl-	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.
Xylenes	A4	Group 3	Not listed.	Not listed.	Not listed.
Benzene, ethyl-	A3	Group 2B	Not listed.	OSHA Carcinogen.	Listed.
Naphthalene	A4	Group 2B	List 2	OSHA Carcinogen.	Listed.



Mutagenicity: Hazardous by OSHA/WHMIS criteria. May cause heritable genetic damage.

Reproductive Effects: Not hazardous by OSHA/WHMIS criteria.

Developmental Effects

Teratogenicity: Not hazardous by OSHA/WHMIS criteria.

Embryo toxicity: Hazardous by OSHA/WHMIS criteria. Possible risk of harm to the unborn child. Exposure to xylene has produced fetotoxic effects in animal studies.

Toxicologically Synergistic Materials: Not available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

Persistence / Degradability: Not available.

Bioaccumulation / Accumulation: Not available.

Mobility in Environment: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions: Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Section 14: TRANSPORTATION INFORMATION

CFR

Proper Shipping Name: UN 1268, PETROLEUM DISTILLATES, N.O.S., 3, PG III

Class: 3

UN Number: 1268

Packing Group: III

Label Code:



TDG

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Packing Group:

III

Label Code:



Section 15: REGULATORY INFORMATION

Chemical Inventories US (TSCA)

The components of this product are in compliance with the chemical notification requirements of TSCA.

Canada (DSL)

The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

Federal Regulations Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

HMIS Classification:

- Class B3 - Combustible Liquids.
- Class D2A - Carcinogenicity.
- Class D2A - Embryotoxicity.
- Class D2A - Mutagenicity.
- Class D2B - Skin irritant.
- Class D2B - Eye irritant.

Hazard Symbols:



United States

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III

Component	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313	RCRA CODE	CAA 112(r) TQ (lbs.)
Stoddard solvent	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.
Nonane	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.	Not listed.
Benzene, 1,2,4trimethyl-	Not listed.	Not listed.	Not listed.	313	Not listed.	Not listed.
Xylenes	Not listed.	Not listed.	100	313	U239	Not listed.
Benzene, ethyl-	Not listed.	Not listed.	1000	313	Not listed.	Not listed.
Naphthalene	Not listed.	Not listed.	100	313	U165	Not listed.

Section 16: OTHER INFORMATION

Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for his own particular use.

Expiry Date: September 15, 2017

Version: 1.0