

Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Hot Shot's Secret TBN Booster

Product Use: Automotive lubricant additive

Company Identification

Lubrication Specialties, Inc. 3975 Morrow Meadows Drive Mount Gilead, Ohio 43338 lubricationspecialties.com

Emergency telephone:

USA: 24 Hour Emergency Response Information CHEMTREC toll free: 1-800-424-9300; direct/international: 1-703-527-3887.

CANADA: Quantum Murray (spill response)1-877-378-7745. CANADA: CANUTEC (collect) 1-613-996-6666. EUROPE: 00 32 3575 5555.

ASIA PACIFIC - excl. China: +65 6542-9595.

CHINA: +86 21 2315 9344. AUSTRALIA: +61 2 9616 5890. SOUTH AFRICA: +32 3 575 55 55.

LATAMERICA: 0800 720 8000.1-613-996-6666.

INDIA: +91 22 30948467/8.

JAPAN: +65 6542 9595 (24時間 日本語対応無料通話, シンガポール)

Product Information

SDS Requests: (800) 341-6516 Technical Information: (800) 341-6516

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION: Skin Sensitizer: Category 1. Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.



Signal Word: Warning

Health Hazards: May cause allergic skin reaction.

Revision Number: 2 Hot Shot's Secret TBN Booster 1 of 10

SDS: HSSTBN32 Revision Date: May 16, 2018

Environmental Hazards: Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:

Prevention: Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment.

Response: IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see Notes to Physician

Disposal: Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

HAZARDS NOT OTHERWISE CLASSIFIED: Not Applicable

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Trade Secret and Proprietary Materials	Trade Secret	34-52%
Highly Refined Mineral Oil (C15-C-50)	Mixture	32-37%
Trimethylolpropane Tripelargonate	126-57-8	9-10%
Zinc dialkyl dithiophosphate	68649-42-3	.5-3%
Branched alkylphenol and Calcium branched	74499-35-7	
alkylphenol	132752-19-3	.1-1%
Borated polyalkylamido polyol	Trade Secret	<1%

Note that the chemical identity of some or all of the above components is considered confidential business information and is being withheld as permitted by 29 CFR 1910.1200 and various State Right-To-Know Laws.

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water. If heated material should splash into eyes, flush eyes immediately with fresh water for 15 minutes while holding the eyelids open. Remove contact lenses, if worn. Get immediate medical attention.

Skin: Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. If the hot material gets on skin, quickly cool in water. See a doctor for extensive burns. Do not try to peel the solidified material from the skin, or use solvents or thinners to

Revision Number: 2 Hot Shot's Secret TBN Booster 2 of 10 SDS: HSSTBN32



dissolve it. The use of vegetable oil or mineral oil is recommended for reskin.

Ingestion: No specific first aid measures are required. Do not induce vo medical advice.

Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

Most important symptoms and effects, both acute and delayed IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation. If this material is heated, thermal burns may result from eye contact.

Skin: Contact with the skin may cause an allergic skin reaction. Repeated contact with the skin may cause irritation. Symptoms may include pain, itching, discoloration, swelling, and blistering. If this material is heated, thermal burns may result from skin contact.

Ingestion: Not expected to be harmful if swallowed.

Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

DELAYED OR OTHER HEALTH EFFECTS: Not classified

Indication of any immediate medical attention and special treatment needed Not Applicable

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Molybdenum, Boron, Phosphorus, Zinc, Nitrogen, Magnesium, Sulfur, Calcium.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying

Revision Number: 2 3 of 10 Hot Shot's Secret TBN Booster

Povision Poto: May 16, 2018

SDS: HSSTBN32

non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. If heated material is spilled, allow it to cool before proceeding with disposal methods.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

General Handling Information: The recommended reheating medium is hot water or regulated low pressure steam. Care must be taken not to exceed the temperatures stated above when reheating this material in order to avoid decomposition that releases hazardous fumes. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Precautionary Measures: If adequate engineering controls are used, short term activities such as loading, unloading and in-line blending may occur at temperatures ranging from 80-85°C (176-185°F). During shipment by railcar or tank truck, loading temperatures as high as 80-85°C (176-185°F) may be used and are expected to drop to 66°C (150°F) or lower within 7 days. Storage temperatures for up to 2 weeks should not exceed 66°C (150°F). The recommended long-term (2 weeks or more) storage temperature is ambient to 45°C (113°F) maximum. Do not get in eyes, on skin, or on clothing. Avoid contact of heated material with eyes, skin, and clothing. Wash thoroughly after handling.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Revision Number: 2 4 of 10 Hot Shot's Secret TBN Booster

SDS: HSSTBN32

ENGINEERING CONTROLS:

Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice. If this material is heated, wear chemical goggles or safety glasses or a face shield.

Skin Protection: Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Nitrile Rubber, Silver Shield, Viton. If this material is heated, wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate to prevent skin contact.

Respiratory Protection: No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 -	ACGIH	5 mg/m3	10 mg/m3		
C50)					
Highly refined mineral oil (C15 -	OSHA Z-1	5 mg/m3			
C50)					
Propretary Materials	Not Applicable				
Zinc alkyl dithiophosphate	Not Applicable				
Branched alkylphenol and Calcium	Not Applicable				
branched alkylphenol					
Borated polyalkylamido polyol	Not Applicable				
Trimethylolpropane Tripelargonate	Not Applicable				

Consult local authorities for appropriate values.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Brown

Physical State: Viscous liquid

Odor: Petroleum odor

Odor Threshold: No data available

pH: Not Applicable

Vapor Pressure: No data available

Revision Number: 2 5 of 10 Hot Shot's Secret TBN Booster

Revision Date: May 16, 2018 SDS: HSSTBN32

Vapor Density (Air = 1): No data available Initial Boiling Point: No data available

Solubility: Insoluble in water.
Freezing Point: No data available
Melting Point: No data available
Density: 0.988 kg/l @ 15°C (59°F)
Viscosity: 61 cSt @ 100°C (212°F)

Coefficient of Therm. Expansion / °F: 0.000350 °F

Evaporation Rate: No data available

Decomposition temperature: No data available **Octanol/Water Partition Coefficient:** No data available

FLAMMABLE PROPERTIES:

Flammability (solid, gas): No Data Available

Flashpoint: No data available

Autoignition: No data available

Flammability (Explosive) Limits (% by volume in air): Lower: No data available Upper: No data

available

SECTION 10 STABILITY AND REACTIVITY

Reactivity: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid: Do not exceed handling and storage temperatures listed in MSDS Section 7 (Handling and Storage).

Incompatibility With Other Materials: Not applicable

Hazardous Decomposition Products: Alkyl Mercaptans (See Section 7), Hydrogen Sulfide (See Section

7)

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Serious Eye Damage/Irritation: The eye irritation hazard is based on an evaluation of the data for similar products. These data show that a specific component present in this product antagonizes (or decreases the severity of) the eye irritation of the ZnDTP.

Skin Corrosion/Irritation: The skin irritation hazard is based on evaluation of data for product components.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for product components. This material is not expected to cause allergic skin reactions when formulated in a finished oil at the prescribed treatment rate of: 19.3 wt. %

Revision Number: 2 6 of 10 Hot Shot's Secret TBN Booster
Special Policy May 16, 2018
SDS: HSSTBN32

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for product components.

Acute Toxicity Estimate: Not Determined

Germ Cell Mutagenicity: The hazard evaluation is based on data for components or a similar material.

Carcinogenicity: The hazard evaluation is based on data for components or a similar material.

Reproductive Toxicity: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Single Exposure: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Repeated Exposure: The hazard evaluation is based on data for components or a similar material.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

Tetrapropenyl phenol (TPP), also known as dodecyl phenol, was tested in a rat oral gavage one-generation reproductive toxicity study (doses of 0, 5, 25, or 125 mg/kg/day) and a rat dietary two-generation reproductive toxicity study (doses of 0, 1.5, 15, or 75 mg/kg/day). Results from the one-generation study demonstrated reduced ovary weights and changes in male reproductive accessory organs (decreased organ weights, decreased secretions, and decreased epididymal sperm concentrations) at 25 mg/kg/day; 5 mg/kg/day was identified as the No Observed Adverse Effect Level (NOAEL). Results from the two-generation study demonstrated prolonged estrous cyclicity, reduced ovary weights, accelerated sexual maturation, decreased mean live litter size, decreased fertility rates, hypospermia, and reduced weights in male reproductive accessory organs at 75 mg/kg/day; 15 mg/kg/day was identified as the NOAEL.

Evaluation of these two primary studies of TPP (one- & two-generation reproductive toxicity studies), as well as supporting data from additional in-vivo & in-vitro studies of both TPP and substances containing TPP & TPP/calcium salts as an impurity resulted in a classification of TPP as a Category 1B under the

Revision Number: 2 Hot Shot's Secret TBN Booster 7 of 10 SDS: HSSTBN32

criteria of the Globally Harmonized System and Regulation (EC) No 1907/2006 (presumed reproductive hazard to humans).

The studies were also evaluated to identify a valid & reliable specific concentration limit (SCL) for reproductive effects, below which reproductive toxicity would not be expected to occur. An SCL of 1.5 wt% TPP & TPP/calcium salts was derived based on the identified NOAEL from the rat dietary two-generation reproductive toxicity study, and confirmed by supporting studies of substances containing TPP as an impurity.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

This material contains one or more components that have a branched alkylphenol impurity that is highly toxic to aquatic organisms (disclosed in Section 3). The components containing the impurity have been tested and are not toxic to aquatic organisms. Therefore the data in Section 3 for the alkylphenol impurity should not be used to classify the product for aquatic toxicity.

MOBILITY

No data available.

PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

Revision Number: 2 8 of 10 Hot Shot's Secret TBN Booster
Special Policy May 16, 2018
SDS: HSSTBN32

DOT Shipping Description: NOT REGULATED AS HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

IMO/IMDG Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT **UNDER ICAO**

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable

SECTION 15 REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES: 1. Immediate (Acute) Health Effects: **YES**

> 2. Delayed (Chronic) Health Effects: NO

> 3. Fire Hazard: NO

> 4. Sudden Release of Pressure Hazard: NO

> Reactivity Hazard: NO

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1 03=EPCRA 313

01-2A=IARC Group 2A 04=CA Proposition 65

01-2B=IARC Group 2B 05=MA RTK 02=NTP Carcinogen 06=NJ RTK 07=PA RTK

The following components of this material are found on the regulatory lists indicated.

06, 07 Zinc alkyl dithiophosphate

CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States).

One or more components has been notified but may not be listed in the following chemical inventories: ENCS (Japan), IECSC (China), KECI (Korea). Secondary notification may be required.

SECTION 16 OTHER INFORMATION

Revision Number: 2 Hot Shot's Secret TBN Booster 9 of 10

SDS: HSSTBN32 Revision Date: May 16, 2018

NFPA RATINGS: Health: 0 Flammability: 1 Reactivity: 0

HMIS RATINGS: Health: 2 Flammability: 1 Reactivity: 0 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT: SECTION 03 - Composition information was modified.

SECTION 15 - Chemical Inventories information was modified.

Revision Date: May 16, 2018

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental	IMO/IMDG - International Maritime Dangerous Goods
Industrial Hygienists	Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on	OSHA - Occupational Safety and Health Administration
Cancer	
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Revision Number: 2 10 of 10 Hot Shot's Secret TBN Booster SDS: HSSTBN32