

MATERIAL SAFETY DATA SHEET FOR SPIRIT 660 S D55G

TOTAL Lubricants USA, Inc.
5 N. Stiles Street
Linden NJ 07036

REVISION DATE
27-OCT-10

DATE ISSUED
15-NOV-10

IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME: SPIRIT 660 S D55G	PRODUCT #: 202494
CHEMICAL NAME: N/A - Mixture	CAS #'S: Mixture
PRODUCT APPEARANCE AND ODOR: Clear amber liquid, typical odor	CHEMICAL FAMILY: N/A Mixture
SYNONYMS: Semi-Synthetic Metalworking Fluid	EMERGENCY TELEPHONE: CHEMTREC 1-800-424-9300

COMPONENTS AND HAZARD INFORMATION

COMPONENTS:	W/W%	HAZARD DATA (TLV, LD50, LC50, ETC.):
Petroleum based lubricating oil CAS No. 64742-52-5		5 mg/m3 ACGIH/OSHA TWA (as an oil mist)
Chlorinated Paraffin CAS No. 63449-39-8		n/e
Emulsifier Base CAS No. n/a - mixture		n/e
Water CAS No. 7732-18-5		n/e
Polyoxyethylene tallow amine CAS No. 61791-26-2		n/e
2-Amino-2-Methyl-1-Propanol, Oleate CAS No. 68140-41-0		n/e
Dicyclohexylamine CAS No. 101-83-7		n/e
Alkyldicarboxylic acid, Triethanolamine salt CAS No. 68603-85-0		n/e

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):

Health	Flammability	Reactivity
1	0	0

TRANSPORTATION INFORMATION

TRANSPORTATION/SHIPPING INFORMATION:

Department of Transportation (DOT): Not regulated

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EMERGENCY FIRST AID

EYE CONTACT:

Immediately flush eyes for at least 15 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. If irritation persists, call a physician.

SKIN CONTACT:

In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water. If irritation develops, call a physician.

INHALATION:

For effects produced by overexposure, remove to fresh air. If effects persist, obtain medical advice.

INGESTION:

If ingested, do not induce vomiting and call a physician immediately. Possible aspiration hazard.

FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (MINIMUM):
N/A

AUTOIGNITION TEMPERATURE:
N/A

If the water in the product is driven off, the base oil flash point is >320°F.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION:

Health	Flammability	Reactivity
1	0	0

FLAMMABLE OR EXPLOSIVE LIMITS (approximate percent by volume in air):
Estimated values: N/A

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES:

Foam, water spray (fog), dry chemical, carbon dioxide extinguishing agents may all be suitable for extinguishing fires involving this type product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists. Wear self contained breathing apparatus and full turn out gear. Cool fire exposed containers with water spray. Dried material can burn.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

n/a

"EMPTY CONTAINER WARNING":

Empty containers retain residue (liquid or vapor) and can be dangerous.

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FIRE AND EXPLOSION HAZARD INFORMATION

Do NOT pressurize, weld, cut braze, solder, drill, grind or expose such containers to heat, flame, sparks, or other sources of ignition; they may explode and cause injury or death. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged, and returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with government regulations.

HEALTH AND HAZARD INFORMATION

EXPOSURE LIMIT FOR TOTAL PRODUCT: N/E

VARIABILITY AMONG INDIVIDUALS:

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure):

Prolonged or repeated skin contact with this product tends to remove skin oils possibly leading to irritation and dermatitis.

Product contacting the eye may cause irritation. Risk of damage to eyes.

Possible aspiration hazard. Induced vomiting may cause aspiration of product into the lungs. Do not induce vomiting.
(See Emergency First Aid Section).

PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE:
Not available

VAPOR PRESSURE:
Not available

SPECIFIC GRAVITY (25°C/25°C):
(WATER = 1)
< 1.0

VAPOR DENSITY (AIR = 1):
> 5

MOLECULAR WEIGHT:
Wide range

PERCENT VOLATILE BY VOLUME:
Approx. 40

EVAPORATION RATE @ 1 ATM. AND 25°C
(77°F) (n-BUTYL ACETATE = 1):
Not available

SOLUBILITY IN WATER @ 1 ATM. and 25°C
(77°F):
100%

REACTIVITY

This product is stable and hazardous polymerization will not occur.

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REACTIVITY

Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.
DO NOT MIX WITH NITRITES due to the possible formation of nitrosamines.
DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS:
Fumes, smoke, carbon monoxide, and other decomposition products, in case of incomplete combustion.
CONDITIONS TO AVOID:
Open flames.

TOXICITY

ORAL (Acute)	N/E
DERMAL (Acute)	N/E
EYE	N/E
INHALATION (Acute)	N/E
CHRONIC, SUBCHRONIC, ETC.	N/E

Medical Conditions Aggravated by Exposure: Unknown

This product does NOT contain any ingredients identified as carcinogenic by IARC, NTP, or OSHA.

All components known to be contained in this product are on the TSCA inventory or are exempt.

SARA Section 313 Status: This material is not known to contain any chemicals on the SARA Section 313 list at a concentration greater than 1.0 percent or carcinogenic chemical on that list at a concentration greater than 0.1 percent.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Keep product out of sewers and watercourses by diking or impounding. Absorb with sand or inert material. Sweep or scoop up and remove. Prevent spread of spill. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with local regulations.

WASTE DISPOSAL METHOD: (Consult federal, state, or local authorities for proper disposal procedures.)
Assure conformity with applicable disposal regulations. Dispose of absorbed material at an approved waste site or facility.

PROTECTION AND PRECAUTIONS

VENTILATION: (Always maintain below permissible exposure limits.)
Use local exhaust to capture vapor, mist or fumes, if necessary.

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RESPIRATORY PROTECTION: (Use only NIOSH approved equipment.)

Normally not needed at ambient temperatures.

PROTECTIVE GLOVES:

Use chemical-resistant gloves, if needed, to avoid skin contact.

EYE PROTECTION:

Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT:

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

WORK PRACTICES/ENGINEERING CONTROLS:

Keep containers closed when not in use. Do not handle near heat, sparks, flame, or strong oxidants. DO NOT MIX WITH NITRITES OR PRODUCTS WHICH CONTAIN NITRITES.

PERSONAL HYGIENE:

Minimize breathing vapor, mist, or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean before reuse. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

PREPARED BY: Erick Aho

CHEMIST

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