SAFETY DATA SHEET

Issue Date 02-01-2018 **Revision Date** 02-01-2018 **Version** 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name: TECH GRADE POWER-STEERING FLUID

Other means of identification

Common Name: 0618
UN/ID No Not Regulated
Synonyms None
Product Categories Lubricant, Automotive

Recommended use of the chemical and restrictions on use

Sale and Use Restrictions Not applicable
Recommended Use Restricted to professional users.
Uses advised against Consumer use

Details of the supplier of the safety data sheet

Supplier Address
MOC PRODUCTS CO., INC.
12306 Montague Street
Pacoima, CA 91331

Emergency telephone number

Company Phone Number MOC PRODUCTS CO., INC. (818) 794-3500
Emergency Telephone CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Skin sensitization	Sub-category 1B

Label elements

Emergency Overview

Warning

Hazard statements
May cause an allergic skin reaction

Appearance Oil **Physical state** Liquid **Odor** Mild Petroleum

Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response
Specific treatment (see response statements below and Section 4 of the Safety Data Sheet)

IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other information
• May be harmful if swallowed
• Toxic to aquatic life with long lasting effects
5.52 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %	Trade Secret
Hydrotreated Heavy Paraffinic Oil	64742-54-7	80-95	*
Aliphatic Petroleum Distillates	64742-65-0	1-35	*
Mineral Oil	MIXTURE	1-37	*
Acrylic Copolymer	PROPRIETARY	1-3	*
Methacrylate copolymer	PROPRIETARY	1-3	*
Fatty Acid Esters	MIXTURE	1-2	*
Substituted hydrocarbyl sulfide	CONFIDENTIAL	0.1-0.5	*
Long chain hydroxyalkylamine	CONFIDENTIAL	0.1-0.3	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

The mineral oil contained in this material may be described by one or more of the following CAS Nos. : CAS# 72623-87-1, CAS#64742-54-7, CAS#64742-65-0, CAS# 64742-55-8, CAS#64742-56-9.

4. FIRST AID MEASURES

First aid measures

Skin contact Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation Move to fresh air. If not breathing, give artificial respiration. If breathing is labored, administer oxygen. Get medical attention if symptoms occur.

Eye contact Immediately flush eyes for at least 15 minutes. Get medical attention.

Ingestion Call a physician. If swallowed, call a poison control center or physician immediately. Do NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

Notes to Physician Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae.

Most important symptoms and effects, both acute and delayed

Symptoms Drowsiness, Dizziness, Coughing and/ or wheezing; Eye irritation. Skin irritation: May cause allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Self-protection of the first aider Avoid contact with skin. Wear appropriate gloves. Remove and wash contaminated clothing. See Section 8 for information on appropriate personal protective equipment.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:
Use water spray (fog), foam, dry chemical or CO2.

Small Fire Dry chemical or CO2.

Large Fire Water spray or fog; Foam.

Explosive properties: Risk of explosion if heated under confinement: Fire or intense heat may cause violent rupture of packages.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating and toxic gases and vapors. Product is or contains a sensitizer: May cause sensitization by skin contact.

Hazardous combustion products Aldehydes, Carbon monoxide, Carbon dioxide (CO2), Hydrocarbons, Nitrogen oxides (NOx), Oxides of sulfur, Alkyl Mercaptans.

Specific methods:
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Special firefighting procedures:
No action shall be taken involving any personal risk without suitable training. Evacuate surrounding areas. Dike to collect large liquid spills. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Do not use water jet. Do not use a solid water stream as it may scatter and spread fire. Use water spray to keep fire-exposed containers cool. Water mist may be used to cool closed containers. Water may cause frothing of heated materials. The product is insoluble and floats on water. Avoid spreading burning liquid with water used for cooling purposes. Do not allow run-off from fire-fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment. See Section 8 for information on appropriate personal protective equipment. Evacuate personnel to safe areas. Avoid contact with skin, eyes and clothing.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions: Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for Containment Dike far ahead of spill; use dry sand to contain the flow of material. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods for clean-up: Clean-up methods - small spillage: Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to state, local, federal regulations. Clean-up methods - large spillage: Keep unnecessary personnel away. Dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling: Protect from physical damage. Do not store at temperatures above 120°F (50°C). Keep containers tightly closed in a cool, well-ventilated place. Empty containers retain product residue and can be hazardous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose these containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death.

Conditions for safe storage, including any incompatibilities

Technical measures/precautions: Ensure adequate ventilation. Eye wash and safety shower should be easily accessible.

Materials to avoid: Strong acids, Oxidizing agents, Reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA Exposure Limits:	NIOSH IDLH
Hydrotreated Heavy Paraffinic Oil 64742-54-7	5 mg/m³ TWA (mist) 10 mg/m³ STEL (mist)	5 mg/m³	-
Aliphatic Petroleum Distillates 64742-65-0	-	Not established	-
Mineral Oil MIXTURE	5 mg/m³ TWA (mist) 10 mg/m³ STEL (mist)	5 mg/m³	-
Acrylic Copolymer PROPRIETARY	-	Not established	-
Methacrylate copolymer PROPRIETARY	-	Not established	-
Fatty Acid Esters MIXTURE	-	-	-
Substituted hydrocarbyl sulfide CONFIDENTIAL	-	Not established	-
Long chain hydroxyalkylamine CONFIDENTIAL	-	Not established	-

Appropriate engineering controls

Engineering measures: Ensure adequate ventilation: Mechanical ventilation required if used indoors on a continuous basis. Eye wash and safety shower should be easily accessible.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear normal work clothing, Long sleeved clothing. Do not wear rings, watches or similar apparel that could entrap the material. Chemical resistant gloves, Recommended Use: Nitrile, Neoprene (consult with the specific manufacturer to confirm performance).

Respiratory protection Ensure adequate ventilation. No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. When using do not eat, drink or smoke. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Oil	**Odor**	Mild Petroleum
Color	Clear Amber	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	N/A	Not applicable
Melting point/freezing point	No information available	
Boiling point / boiling range	>= 315 °C / 599 °F	(based on components)
Flash point	>= 120 °C / 248 °F	(Lowest liquid component)
Evaporation rate	Slower than ether	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No Data Available	
Lower flammability limit	No Data Available	
Vapor pressure	No Data Available	
Vapor density	Heavier than air	
Specific Gravity	0.85	
Water solubility	Insoluble in water	
Solubility in other solvents	No Data Available	
Partition coefficient	No Data Available	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Kinematic viscosity	34.8 mm2/s	@ 40 °C
Dynamic viscosity	No Data Available	
Explosive properties	No Data Available	
Oxidizing properties	No Data Available	

Other information

Softening point	No Data Available
Molecular weight	No Data Available
VOC Content (%)	
VOC Content (%)	Negligible
Density	0.85 g/cc
Bulk density	No Data Available

10. STABILITY AND REACTIVITY

Reactivity
Reactivity Stable.

Chemical stability
Possibility of Hazardous Reactions None under normal processing.
Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials

Materials to avoid: Strong acids, Oxidizing agents, Reducing agents.
Hazardous Decomposition Products

Hazardous Decomposition Products Carbon monoxide, Carbon dioxide (CO2), Aldehydes, Hydrocarbons, Nitrogen oxides

(NOx), Sulfur oxides (SOx), Alkyl Mercaptans.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information May be harmful if swallowed. May cause allergic skin reaction.

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.

Eye contact Contact with eyes may cause irritation.

Skin Contact May cause irritation. Repeated exposure may cause skin dryness or cracking. May cause allergic skin reaction.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrotreated Heavy Paraffinic Oil 64742-54-7	>5000mg/kg (Rat)	>5000 mg/kg (Rabbit)	-
Aliphatic Petroleum Distillates 64742-65-0	-	-	-
Mineral Oil MIXTURE	25000 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	-
Acrylic Copolymer PROPRIETARY	-	-	-
Methacrylate copolymer PROPRIETARY	-	-	-
Fatty Acid Esters MIXTURE	-	-	-
Substituted hydrocarbyl sulfide CONFIDENTIAL	-	-	-
Long chain hydroxyalkylamine CONFIDENTIAL	-	-	-

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Skin Sensitization: May cause allergic skin reaction. Respiratory Sensitization: Not classified.
Mutagenic effects: No data available to indicate product or any components present at or greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by IARC, NTP, or OSHA.
Reproductive toxicity No information available.
STOT - single exposure Not classified.
STOT - repeated exposure Not classified.
Chronic toxicity No information available.
Subchronic toxicity No information available.
Target Organ Effects Skin, Eyes, Respiratory system.
Neurological effects No information available.
Other adverse effects No information available.
Aspiration hazard Risk of serious damage to the lungs (by aspiration).

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 5.52 % of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 4614 mg/kg
ATEmix (dermal) 14285 mg/kg

ATEmix (inhalation-vapor) 13333

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chronic Aquatic Toxicity: Toxic to aquatic life with long lasting effects.

8.29 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrotreated Heavy Paraffinic Oil 64742-54-7		5000: 96 h Oncorhynchus mykiss mg/L LC50		1000: 48 h Daphnia magna mg/L EC50
Aliphatic Petroleum Distillates 64742-65-0		5000: 96 h Oncorhynchus mykiss mg/L LC50		1000: 48 h Daphnia magna mg/L EC50
Mineral Oil MIXTURE	>100: 3d Scenedesmus quadricauda mg/L EC50	>100:4d Fathead Minnow mg/L LC50		>10000: 2d Daphnia magna mg/L EC50

Persistence and degradability
This product contains components which may be persistent in the environment.

Bioaccumulation
Bioaccumulative potential.

Mobility
The product is insoluble and floats on water.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Dispose of in accordance with federal, state and local regulations.

Contaminated packaging Do not reuse container. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Federal Regulations

SARA 313

No SARA 313 chemicals are present above the reporting threshold.

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

State Regulations (RTK)

California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm:

Chemical Name	CAS Number	California Proposition 65
Sulfur dioxide	7446-09-5	Developmental
Ethyl acrylate	140-88-5	Carcinogen
Trimethyl phosphate	512-56-2	Carcinogen
Ethylbenzene	100-41-4	Carcinogen
Naphthalene	91-20-3	Carcinogen
Benzene	71-43-2	Carcinogen Developmental Male Reproductive
Toluene	108-88-3	Developmental

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA Rating

Health hazards 1
Flammability 1
Instability 0

Physical and Chemical Properties -
HMIS Rating
Health hazards 1
Flammability 1
Physical hazards 0
Personal protection B

Prepared by	Environmental Health and Safety Department
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Revision Note
Formula. The Emergency Overview has changed. SEE SECTION 2. This data sheet contains changes from the previous version in section(s): 2, 3, 4, 5, 8, 11, 12, 15.

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet