

GHS - SAFETY DATA SHEET

Date: 2023.10.27

Section 1. Identification of the substance/mixture and of the company/undertaking

Product Name TEOST® MHT Reference Oil – MDF-4

Recommended Use: Calibration and performance verification reference standard for high temperature deposit equipment.

Supplier: Tannas Company/Savant Tech (a division of Savant, Inc.)
4800 James Savage Rd.
Midland, MI 48642 USA

Emergency Phone: 989-496-2301

Section 2. Hazards identification

GHS Classification: This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label Elements

Hazard pictograms: None

Signal Word: No signal word.

Hazard Statement: No known significant effects or critical hazards.

Precautionary Statements No precautionary phrases.

Prevention: No precautionary phrases.

Response: No precautionary phrases.

Storage: No precautionary phrases.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other Hazards: Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Used oil may contain harmful impurities.
Not classified as flammable but will burn
The classification of this material is based on OSHA HCS 2012 criteria.
Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Section 3. Composition/information on ingredients

Substance/Mixture: Mixture

Chemical Name: Highly refined mineral oils and additives.
The highly refined mineral oil contains <3% (w/w) DMSO extract, according to IP346.

Other means of Identification: None

GHS - SAFETY DATA SHEET

Date: 2023.10.27

CAS number/other Identifiers:

* contains one or more of the following CAS-numbers: 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-65-0, 68037-01-4, 72623-86-0, 72623-87-1, 8042-47-5, 848301-69-9, 68649-12-7, 151006-60-9, 163149-28-8.

Chemical Name	CAS-No	Weight %
Alkaryl amine	36878-20-3	1 - 3
Interchangeable low viscosity base oil (<20,5 cSt @40°C) *	Not Assigned	0-90%

Section 4. First aid measures

Eye contact:	Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. If persistent irritation occurs, obtain medical attention
Skin contact:	Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
Inhalation:	No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.
Ingestion:	In general, no treatment is necessary unless large quantities are swallowed, however, get medical advice.
Most Important Symptoms/Effects:	Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhea.
Indication of immediate medical attention and special treatment needed:	If necessary, treat symptomatically.

Section 5. Fire-fighting measures

Extinguishing media

Suitable Extinguishing Media:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable Extinguishing Media:	Do not use water in a jet.
Specific hazards during firefighting	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and

GHS - SAFETY DATA SHEET

Date: 2023.10.27

gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.

Specific extinguishing methods

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for firefighters

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

Section 6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures:

Avoid contact with skin and eyes.

Methods and materials for containment and cleaning up:

Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material.

Reclaim liquid directly or in an absorbent.

Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Environmental Precautions:

Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Local authorities should be advised if significant spillages cannot be contained.

Section 7. Handling and storage

Technical measures

Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols.

Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

GHS - SAFETY DATA SHEET

Date: 2023.10.27

Advice on safe handling

Avoid prolonged or repeated contact with skin.
 Avoid inhaling vapour and/or mists.
 When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
 Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

**Avoidance of contact
 Product Transfer**

Avoid strong oxidizing agents
 Proper grounding and bonding procedures should be used during all bulk transfer operations to avoid static accumulation.

**Further information on storage
 stability**

Keep container tightly closed and in a cool, well-ventilated place.
 Use properly labeled and closable containers.

Packaging material

Suitable material: For containers or container linings, use mild steel or high-density polyethylene.
 Unsuitable material: PVC.

Container Advice

Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

Section 8. Exposure controls/personal protection

Occupational Exposure Limits:

OSHA	Component	Type	Value
	Oil mist, mineral	TWA (Mist)	5mg/m3

ACGIH

Component	Type	Value
Oil mist, mineral	TWA (Inhalation particulate matter)	5mg/m3

Appropriate Engineering Controls:

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances.

Appropriate measures include:

Adequate ventilation to control airborne concentrations.
 Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control

GHS - SAFETY DATA SHEET

Date: 2023.10.27

measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Individual Protection Measures, such as Personal Protective Equipment:

Eye/Face Protection:	If material is handled such that it could be splashed into eyes, protective eyewear is recommended.
Hand Protection:	Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced.
Skin and Body Protection:	Skin protection is not ordinarily required beyond standard work clothes. It is good practice to wear chemical resistant gloves
Respiratory Protection:	No respiratory protection is ordinarily required under normal conditions of use.
General Hygiene Considerations:	Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly.

Section 9. Physical and chemical properties

Appearance	Amber
Physical State	Liquid at room temperature.
Odor	Hydrocarbon-like
Odor Threshold:	Not Available
pH:	Not applicable
Melting/Freezing Point:	Not Available
Initial Boiling Point:	> 280 °C / 536 °F estimated value(s)
Flash Point:	209 °C / 408 °F Method: ASTM D93 (PMCC)
Evaporation Rate:	Not Available
Flammability (solid,gas):	Not Available

GHS - SAFETY DATA SHEET

Date: 2023.10.27

Upper/Lower Flammability or Explosive Limits

Flammability Limit

Lower %: Typical 1 %(V)
Upper %: Typical 10 %(V)

Explosive Limit

Lower %: Not Available
Upper %: Not Available

Vapor Pressure: < 0.5 Pa (20 °C / 68 °F)

Vapor Density: >1 estimated value(s)

Relative Density: 0.8685 (15 °C / 59 °F)

Solubility (water): Insoluble

Partition Coefficient

(n-octanol/water): log Pow: > 6 (based on information on similar products)

Auto-ignition Temperature: > 320 °C / 608 °F

Decomposition Temperature: Not Available

Viscosity: 72.38 mm²/s (40.0 °C / 104.0 °F), Method: ASTM D445
10.75 mm²/s (100 °C / 212 °F)

Section 10. Stability and reactivity

Reactivity: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

Chemical Stability: Stable.

Possibility of Hazardous Reactions: Reacts with strong oxidizing agents.

Conditions to Avoid: Extremes of temperature and direct sunlight.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: No decomposition if stored and applied as directed.

Section 11. Toxicological information

Information on Likely Routes of Exposure

Inhalation May be harmful if swallowed.

Eye Contact Slightly irritating to the eye.

Skin Contact Not a skin sensitizer.

Ingestion

Symptoms Related to the Physical, Chemical and Toxicological Characteristics:
Not Available.

Information on Toxicological Effects

Acute Toxicity: Not applicable

Skin Corrosion / Irritation: Low toxicity

GHS - SAFETY DATA SHEET

Date: 2023.10.27

Serious Eye Damage / Eye Irritation:	Slightly irritating to the eye
Respiratory or Skin Sensitization	Low toxicity
Respiratory Sensitization:	Not classified.
Skin Sensitization:	Not classified.
Mutagenicity:	Non mutagenic.
Carcinogenicity:	Not a carcinogen
Reproductive Toxicity:	Contains no ingredient listed as toxic to reproduction.
Specific Target Organ Toxicity - Single Exposure	Not classified
Specific Target Organ Toxicity - Repeated Exposure	Not classified
Aspiration Hazard	May be fatal if swallowed and enters airways.
Chronic Effects	Prolonged or repeated contact may cause drying and cracking of the skin.

Section 12. Ecological information

Ecotoxicity:	<p>Ecotoxicological data have not been determined specifically for this product.</p> <p>Information given is based on a knowledge of the components and the ecotoxicology of similar products.</p> <p>Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s). (LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).</p>
Toxicity to fish (Acute toxicity)	<p>Remarks: LL/EL/IL50 > 100 mg/l</p> <p>Practically non-toxic:</p> <p>Based on available data, the classification criteria are not met.</p>
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	<p>Remarks: LL/EL/IL50 > 100 mg/l</p> <p>Practically non-toxic:</p> <p>Based on available data, the classification criteria are not met.</p>
Toxicity to algae (Acute toxicity)	<p>Remarks: LL/EL/IL50 > 100 mg/l</p> <p>Practically non toxic:</p> <p>Based on available data, the classification criteria are not met.</p>
Toxicity to fish (Chronic toxicity) aquatic invertebrates (Chronic toxicity)	<p>Remarks: Data not available</p>
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	<p>Remarks: Data not available</p>

GHS - SAFETY DATA SHEET

Date: 2023.10.27

**Toxicity to microorganisms
(Acute toxicity)**

Remarks: Data not available

**Persistence and Degradability:
Bio accumulative Potential:**

Not inherently biodegradable.

Contains components with the potential to bioaccumulate.

Mobility in Soil:

Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile.

Other Adverse Effects:

Does not have ozone depletion potential, photochemical ozone creation potential or global warming potential.

Product is a mixture of non-volatile components, which will not be released to air in any significant quantities under normal conditions of use.

Poorly soluble mixture.

Causes physical fouling of aquatic organisms.

Mineral oil does not cause chronic toxicity to aquatic organisms at concentrations less than 1 mg/l.

Section 13. Disposal considerations

Disposal Instructions:

Recover or recycle if possible.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.

Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.

Waste, spills or used product is dangerous waste. Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Section 14. Transport information

DOT:

Not regulated as dangerous goods.

IMDG:

Not regulated as dangerous goods.

GHS - SAFETY DATA SHEET

Date: 2023.10.27

Section 15. Regulatory information

U.S. Federal Regulations:	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
United States Inventory: (TSCA 8b)	All components are listed or exempted.
SARA 302/304:	This material does not contain any components with a section 304 EHS RQ
SARA 311/312 Hazard Categories:	
Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No
SARA 313:	The following components are subject to reporting levels established by SARA Title III, Section 313: Zinc dialkyldithiophosphate 4259-15-8 >= 0.1 - < 1 % Zinc dialkyldithiophosphate 68784-31-6 >= 0.1 - < 1 % No products were found.
CERCLA:	
State Regulations:	
California Prop 65:	No components are listed.
Pennsylvania Right To Know	
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Zinc dialkyldithiophosphate	4259-15-8
Zinc dialkyldithiophosphate	64742-54-7
Zinc dialkyldithiophosphate	68784-31-6
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0

GHS - SAFETY DATA SHEET

Date: 2023.10.27

Section 16. Other information

NFPA Rating (Health, Fire, Reactivity) 0, 1, 0

Issuing Date:	2015 August 17 th
SDS Revision Date:	2023 October 27 th
Revision Note:	Date Extension- Review Completed

This safety data sheet compiles with the requirements of Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EU) No. 1907/2006

General Disclaimer

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End of Safety Data Sheet