Safety Data Sheet

TRUEGARD PROPYLENE GLYCOL HEAT TRANSFER FLUID 50/50

According to OSHA Hazard Communication Standard,
29 CFR 1910.1200 Effective Date 07/08/2021

Keller-Heartt Oil
Oil solutions for today and tomorrow...

TRUEGARD

SECTION 1 MATERIAL AND COMPANY IDENTIFICATION

Material Name: **TRUEGARD PROPYLENE GLYCOL HEAT TRANSFER FLUID 50/50**

Product Code: 100142

This product is intended for use only by professional, trained personnel using proper equipment. Not intended for sale to, or use by, the general public.

U.S. Emergency Telephone Number:
1-800-633-8253

Supplied by:

KELLER-HEARTT OIL
4411 South Tripp Ave.
Chicago, IL 60632
P. 773-247-7606 F. 773-247-7969
www.kellerheartt.com

SECTION 2 HAZARDS IDENTIFICATION

Hazard classification:
This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200

Other hazards: No data available

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Propylene Glycol CAS#57-55-6 >92%
Water <4%
Proprietary Additive Package <4%

SECTION 4 FIRST AID MEASURES

Description of first aid measures

General advice: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Skin contact: Wash off with plenty of water.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media: Do not use direct water stream. May spread fire.

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Keep personnel out of low areas. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Any absorbent material. Collect in suitable and properly labeled open containers. Wash the spill site with large quantities of water. Large spills: Dike area to contain spill. Pump into suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling: Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Conditions for safe storage: Store away from direct sunlight or ultraviolet light. Keep container tightly closed when not in use. Protect from atmospheric moisture. Store in the following material(s): Stainless steel. Aluminum. Container lined with phenolic or epoxy-phenolic FDA food contact approved coating. 316 stainless steel. Opaque HDPE plastic container.

Storage stability

Shelf life: Use within 12 Months

Control parameters

Component: Propylene Glycol Regulation: US WEEL Listing Type: TWA Value: 10 mg/m3

Legend: TWA 8-hr TWA US WEEL USA. Workplace Environmental Exposure Levels (WEEL)

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields). If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

Other protection: No precautions other than clean body-covering clothing should be needed.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Liquid.
Color	Clear, Dyed
Odor	Odorless
Melting point/range	< -20 °C (< -4 °F) EU Method A.1 (Melting / FreezingTemperature)
Freezing point	< -20 °C (< -4 °F) EC Method A1
Boiling point	(760 mmHg) 184 °C (363 °F) at 752.46 mmHg Literature
Flash point closed cup	104 °C (219 °F) at 1,000.1 hPa EC Method A9(PMCC)

Evaporation Rate (Butyl Acetate= 1)	0.01 Estimated.
Flammability (solid, gas)	Not applicable to liquids
Lower explosion limit	2.6 % vol Estimated.
Upper explosion limit	12.5 % vol Estimated.
Vapor Pressure	20 Pa at 25 °C (77 °F) EC Method A4
Relative Vapor Density (air = 1)	2.62 Literature
Relative Density (water = 1)	1.03 at 20 °C (68 °F) / 20 °C EU Method A.3 (Relative Density)
Water solubility	100 % at 20 °C (68 °F) EU Method A.6 (Water Solubility)
Partition coefficient: noctanol/water	log Pow: -1.07 Measured
Auto-ignition temperature	> 400 °C (> 752 °F) at 100.01 kPa EC Method A15
Decomposition temperature	No test data available
Dynamic Viscosity	43.4 mPa.s at 25 °C (77 °F) Literature
Explosive properties	Not explosive
Oxidizing properties	No
Liquid Density	1.03 g/cm3 at 20 °C (68 °F) Literature
pour point	< -57 °C (< -71 °F) Literature

NOTE: The physical data presented above are typical values and should not be construed as a specification

SECTION 10 STABILITY AND REACTIVITY

Reactivity: no data available

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

Hygroscopic

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Avoid direct sunlight or ultraviolet sources.

Incompatible materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Alcohols. Ethers. Organic acids.

SECTION 11 TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

Acute toxicity

Acute oral toxicity: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

LD50, Rat, > 20,000 mg/kg

Acute dermal toxicity: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rabbit, > 2,000 mg/kg No deaths occurred at this concentration.

Acute inhalation toxicity: At room temperature, exposure to vapor is minimal due to low volatility. Mist may cause irritation of upper respiratory tract (nose and throat). LC50, Rabbit, 2 Hour, Aerosol, 317.042 mg/l No deaths occurred at this concentration.

Skin corrosion/irritation: Prolonged contact is essentially nonirritating to skin. Repeated contact may cause flaking and softening of skin.

Serious eye damage/eye irritation: May cause slight temporary eye irritation. Corneal injury is unlikely. Mist may cause eye irritation.

Sensitization: Did not cause allergic skin reactions when tested in humans. For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure): Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure): In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effects.

Carcinogenicity: Did not cause cancer in laboratory animals.

Teratogenicity: Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive toxicity: In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

Mutagenicity: In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

Aspiration Hazard: Based on physical properties, not likely to be an aspiration hazard.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Acute toxicity to fish: Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested). LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 40,613 mg/l, OECD Test Guideline 203

Acute toxicity to aquatic invertebrates: LC50, Ceriodaphnia dubia (water flea), static test, 48 Hour, 18,340 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants: ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate inhibition, 19,000 mg/l, OECD Test Guideline 201

Toxicity to bacteria: NOEC, Pseudomonas putida, 18 Hour, > 20,000 mg/l, Method Not Specified.

Chronic aquatic toxicity

Chronic toxicity to aquatic invertebrates: NOEC, Ceriodaphnia dubia (water flea), semi-static test, 7 d, number of offspring, 13,020 mg/l

Persistence and degradability

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Biodegradation may occur under anaerobic conditions (in the absence of oxygen).

10-day Window: Pass

Biodegradation: 81 %

Exposure time: 28 d

Method: OECD Test Guideline 301F or Equivalent

10-day Window: Not applicable

Biodegradation: 96 %

Exposure time: 64 d

Method: OECD Test Guideline 306 or Equivalent

Theoretical Oxygen Demand: 1.68 mg/mg

Chemical Oxygen Demand: 1.53 mg/mg

Biological oxygen demand (BOD)

Incubation

Time

BOD

5 d 69.000 %

10 d 70.000 %

20 d 86.000 %

Photodegradation

Atmospheric half-life: 10 Hour

Method: Estimated.

Bioaccumulative potential

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): -1.07 Measured

Bioconcentration factor (BCF): 0.09 Estimated.

Mobility in soil: Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process. Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient(Koc): < 1 Estimated.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

SECTION 14 TRANSPORT INFORMATION

DOT: Not regulated for transport

Classification for SEA transport (IMO-IMDG): Not regulated for transport

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code

Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO): Not regulated for transport

SECTION 15 REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is not a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Pennsylvania Worker and Community Right-To-Know Act:

The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components CASRN

Propylene glycol 57-55-6

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances knownto the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

SECTION 16 OTHER INFORMATION

Product Literature

Additional information on this and other products may be obtained by visiting our web page, **www.kellerheartt.com**

Hazard Rating System

NFPA

Health: 1 Fire: 1 Reactivity: 0