Safety Data Sheet

Issue Date: 13-Nov-2014 **Revision Date:** 3-Dec-2015 **Version** 3

1. IDENTIFICATION

Product Identifier

Product Name Thermaflo® 660 ; Thermaflo® 660 Reclaimed; CG T-66 (also known as) Reclaimed T-66

Other means of identification

SDS # CG-005

Recommended use of the chemical and restrictions on use

Recommended Use Heat transfer fluid.

Details of the supplier of the safety data sheet

Supplier Address
ORG Chem Group, LLC
2406 Lynch Road
Evansville, IN 47711
www.chem-group.com

Emergency Telephone Number

Company Phone Number Non ER questions 800-489-2306 / 812-464-4446
Emergency Telephone (24 hr) Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Appearance Clear to light yellow liquid **Physical State** Liquid **Odor** Characteristic

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

Precautionary Statements - Prevention

Avoid sparks, welding and cutting on or near drums, even if empty

An improperly designed or maintained heat transfer system may permit the release of fluid, or air/moisture leakage into the system. This leakage could lower the fluid's flashpoint and/or produce light ends. System leaks that result in saturated insulation may, when heated over time, create a combustible mixture when suddenly exposed to air. Leakage of fluid from the system at operating temperature and pressure may cause fluid to disperse as an aerosol, which may result in flammable concentrations of vapor in the air. Thermal degradation or other decomposition of the fluid can occur in an improperly maintained heat transfer system, and also for other reasons, including operating the system above the fluid's recommended operating temperature and failure to maintain proper fluid velocity. Degradation or decomposition of the fluid may also create "low boiler" hydrocarbon compounds or light ends. The occurrence of any of the foregoing conditions may lead to an increased risk of explosion and/or fire.

Other Hazards

Very toxic to aquatic life with long lasting effects

Unknown Acute Toxicity

20-30% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Terphenyl, hydrogenated	61788-32-7	70-90
Higher polyphenyls, hydrogenated	68956-74-1	<15
Terphenyl	26140-60-3	5-10

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/ attention.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Ingestion Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician immediately.

Most important symptoms and effects

Symptoms May cause eye, skin and respiratory tract irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray, foam, carbon dioxide, dry chemical, or any Class B extinguishing agent.

Large Fire See Sections 2 and 10 of this Safety Data Sheet.

Unsuitable Extinguishing Media Do not scatter spilled material with high pressure water streams.

Specific Hazards Arising from the Chemical
Avoid sparks, welding and cutting on or near drums, even when empty. Dangerous gases or fumes may occur in case of fire.

Hazardous Combustion Products Carbon oxides, Soot. Smoke. Hydrocarbons.

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
Wear self contained breathing apparatus for fire-fighting if necessary Use standard firefighting procedures and consider the hazards of other involved materials. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water may be used to cool closed containers to prevent pressure buildups and possible ignition or explosion when exposed to extreme heat. Do not allow run-off from fire-fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Ensure adequate ventilation, especially in confined areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Collect spillage. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Dike far ahead of liquid spill for later disposal. Absorb with inert material or sweep up, and then place in suitable container for chemical waste.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Wash face, hands, and any exposed skin thoroughly after handling. Use personal protection recommended in Section 8. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up.

Incompatible Materials Strong oxidizing agents. Reducing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Terphenyl, hydrogenated 61788-32-7	TWA: 0.5 ppm non-irradiated	(vacated) TWA: 0.5 ppm (vacated) TWA: 5 mg/m^3	TWA: 0.5 ppm TWA: 5 mg/m^3
Terphenyl 26140-60-3	Ceiling: 5 mg/m^3	(vacated) Ceiling: 0.5 ppm (vacated) Ceiling: 5 mg/m^3 Ceiling: 1 ppm Ceiling: 9 mg/m^3	IDLH: 500 mg/m^3

Appropriate engineering controls

Engineering Controls Maintain eye wash fountain and quick-drench facilities in work area.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety goggles.

Skin and Body Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection Respiratory protection is not required except in emergencies or when conditions cause excessive airborne levels, mist, or vapors. Select the appropriate approved organic vapor air-purifying respirator, self-contained breathing apparatus, or air supplied respirators in situations where there may be potential for overexposure.

General Hygiene Considerations Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Clear to light yellow liquid	**Odor**	Characteristic
Color	Clear to light yellow	**Odor Threshold**	Not determined

Property	Values	Remarks • Method
pH	Not determined	
Melting Point/Freezing Point	< -30 °C / -22 °F	
Boiling Point/Boiling Range	348 °C / 658.4 °F	
Flash Point	190 °C / 374 °F	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-not applicable	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.00-1.01	@ 25 °C (77 °F)
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	

Auto-ignition Temperature	380 °C / 716 °F	
Decomposition Temperature	Not determined	
Kinematic Viscosity (at 40 deg C)	27 cSt	
Dynamic Viscosity	30 cSt	@ 40°C (104°F)
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid
Ignition sources.

Incompatible Materials
Strong oxidizing agents. Reducing agent.

Hazardous Decomposition Products
Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Moderately irritating to the eyes.

Skin Contact May cause moderate irritation to skin.

Inhalation Avoid breathing vapors or mists.

Ingestion May cause discomfort if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Terphenyl, hydrogenated 61788-32-7	= 10200 mg/kg (Rat)	= 6800 mg/kg (Rabbit)	> 4.3 mg/L (Rat) 4 h
Terphenyl 26140-60-3	-	> 12500 mg/kg (Rabbit)	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

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

Carcinogenicity Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity
Not determined

Unknown Acute Toxicity 20-30% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Terphenyl, hydrogenated 61788-32-7	0.53: 96 h Pseudokirchneriella subcapitata mg/L EC50	0.53: 96 h Pimephales promelas mg/L LC50 static 0.53: 96 h Lepomis macrochirus mg/L LC50 static 0.53: 96 h Oncorhynchus mykiss mg/L LC50 static		0.011: 48 h Daphnia magna mg/L EC50
Terphenyl 26140-60-3	0.02: 96 h Pseudokirchneriella subcapitata mg/L EC50	0.11: 96 h Oncorhynchus mykiss mg/L LC50 static 0.11: 96 h Lepomis macrochirus mg/L LC50 static 0.11: 96 h Pimephales promelas mg/L LC50 static		0.11: 48 h Daphnia magna mg/L EC50

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility
Not determined

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

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

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

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not regulated

IATA Not regulated

IMDG
Marine Pollutant This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Terphenyl, hydrogenated	Present	X		Present		Present	X	Present	X	X
Higher polyphenyls, hydrogenated	Present	X		Present			X		X	X
Terphenyl	Present	X		Present		Present	X	Present	X	X

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing and Evaluated Chemical Substances*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

AICS *- Australian Inventory of Chemical Substances*

US Federal Regulations

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).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Terphenyl, hydrogenated 61788-32-7	X	X	X
Terphenyl 26140-60-3	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	1	1	0	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	1	1	0	B

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Revision Note: corrected SDS # typo

Disclaimer

The information provided in this 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