SECTION 1. Identification of the substance/mixture and of the company

Product identifier

Name Used on Label	:	**Thermal C5**
Order-No. (5 Liter)	:	8891403
Order-No. (10 Liter)	:	8891402
Order-No. (55 Gal Drum)	:	8891301

Company	:	JULABO U.S.A., INC
Manufactured for:		884 Marcon Blvd
		ALLENTOWN,PA 18109 / U.S.A.
Phone	:	[+1] 610-231-0250
Fax	:	[+1] 610-231-0260
E-mail	:	info@julabo.com
Internet	:	www.julabo.com

Emergency Information :CHEMTREC 1-800-424-9300
Trade name :Polydimethylsiloxane

Recommended use	:	Industrial use only
Application	:	temperature control liquid
	:	working temperature range -60 °C - +110 °C

SECTION 2. Hazards identification

Physical hazards Not classified
Health hazards Not classified
Environmental hazards Not classified
OSHA defined hazards Not classified

*Hazards not stated here are “Not classified”, “Not applicable”, or “Classification not possible”

Label Elements

Hazard symbol None
Signal word None
Hazard statement Not available

Precautionary statement

Prevention Not available
Response Not available
Storage Not available
Disposal Not available

Hazard(s) not otherwise classified (HNOC) None known
Supplemental information None

HMIS Ratings: **Health: 0** **Flammability: 1** **Physical hazard: 0**

SECTION 3. Composition / information on ingredients

Substances

Chemical Name	CAS number	%
Polydiimethylsiloxane	63148-62-9	100

Dangerous components Not applicable

SECTION 4. First aid measures

Description of first aid measures
General information: No special measures required
Inhalation Supply fresh air; consult doctor in case of complaints.
Skin contact Wash skin with soap and water

Eye contact	Rinse immediately with plenty of water for at least 15 minutes
Ingestion	Rinse mouth. Get medical attention immediately.
Most important symptoms/effects, acute and delayed	Not available
Indication of immediate medical attention and special treatment needed	Treat symptomatically.

SECTION 5. Firefighting measures

Flash point:	>214 °F / >101.1 °C (Closed Cup)
Autoignition temperature:	>752 °F / >400 °C
Flammability Limits in Air:	Not determined
Suitable extinguishing media	Water spray. Foam. Dry chemical powder. Carbon dioxide (CO_2).
Unsuitable extinguishing media	Water with full jet
Specific hazards arising from the chemical	By heating and fire, harmful vapors / gases may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet, gloves, rubber boots, and self-contained breathing apparatus.
Fire-fighting equipment / Instructions	Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear appropriate personal protective equipment. Particular danger of slipping on leaked / spilled product.
Environmental precautions
Do not allow product to reach sewage system or any water course.
Methods and material for containment and cleaning up
Absorb with liquid-binding material (sand, diatomaceous earth, sawdust, acid binders, universal binders)

SECTION 7. Handling and storage

Precautions for safe handling
Keep receptacles tightly sealed. Do not breathe mist or vapor. Provide adequate ventilation.
Information about fire - -and explosion protection
No special measures required
Conditions for safe storage, including any incompatibilities
Store in a cool, dry place out of direct sunlight. Keep in original container.
Storage class: VCI: 10
Specific end use(s): No additional information available.

SECTION 8. Exposure controls / personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Provide eyewash station

Individual protection measures, such as personal protective equipment

Eye/face protection	Use proper protection – safety glasses as a minimum
Skin protection	
Hand protection	Wear protective gloves
Other	No special protective equipment required
Respiratory protection	If ventilation is insufficient when heating use chemical respirator with organic vapor cartridge.
Thermal hazards	Not available

General hygiene considerations

Wash hands before breaks and immediately after handling product. Handle in accordance with good industrial hygiene and safety practice. This product can generate formaldehyde at approximately 150 °C (300 °F) and above in the presence of air. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant and potential cancer hazard. Safe handling conditions may be maintained by keeping vapor concentrations within the OSHA Permissible Exposure Limit for formaldehyde.

SECTION 9. Physical and chemical properties

Physical Form	Liquid
Color	Colorless
Odor	Odorless
Density	0.915 (@ 25 °C)
Viscosity	5 cSt (@ 25 °C)
pH	Not available
Freezing / melting point	Not available
Initial boiling point / boiling range	>205 °C
Flash point	>214 °F / >101 °C (Closed Cup)
Auto-ignition temperature	>752 °F / >400 °C
Decomposition temperature	Not available
Evaporation rate	Not available
Volatile content	Not available
Flammability (solid , gas)	Not applicable
Upper / lower flammability or explosive limits	
Flammability limit – lower (%)	Not available
Flammability limit – upper (%)	Not available
Explosive limit – lower (%)	Not available
Explosive limit – upper (%)	Not available
Vapor pressure	Not available
Vapor density	Not available
Solubility in water	Insoluble

Above information is not intended for use in preparing product specifications.

SECTION 10. Stability and reactivity

Reactivity	Product stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	None known.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Thermal decomposition of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon Dioxide. Formaldehyde.

SECTION 11. Toxicological information

Information on likely routes of exposure

Ingestion	Not available
Inhalation	Not available
Skin contact	Not available
Eye contact	Contact of the product with the human eye may result in a harmless and reversible clouding of sight which is of short duration, caused by formation of an oil film on the cornea.

Symptoms related to the physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity	LD50, oral, rat >5000 mg/kg LC50, inhalation, rat >535 mg/kg (1 h, Aerosol)

LD50, dermal, rabbit >10000 mg/kg

Skin corrosion / irritation Not available

Serious eye damage / eye irritation Contact of the product with the human eye may result in a harmless and reversible clouding of sight which is of short duration, caused by formation of an oil film on the cornea.

Respiratory or skin sensitization

Respiratory sensitization Not available

Skin sensitization Not available

Germ cell mutagenicity Not available

Carcinogenicity

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Not available

Specific target organ toxicity – single exposure Not available

Specific target organ toxicity – repeated exposure Not available

Aspiration hazard Not available

Further information When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

SECTION 12. Ecological information

Toxicity

Aquatic toxicity

LC0, 96 h, 200 mg/l, Leuciscus idus

EC0, > 10.000 mg/l Pseudomonas putida

Persistence and degradability Not available

Bioaccumulative potential Not available

Mobility in soil Not available

Other adverse effects Not available

SECTION 13. Disposal considerations

Disposal instructions Follow applicable Federal, State and Local regulations

SECTION 14. Transport information

DOT Not regulated as dangerous goods.

IATA Not regulated as dangerous goods.

IMDG Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

Transport / Additional information Not dangerous according to the above specifications.

SECTION 15. Regulatory information

US Federal regulations

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 313 (TRI reporting)

None present or not present in regulated quantities.

DOT Road Shipment Information (49 CFR 172.101)

Not subject to DOT.

Ocean Shipment (IMDG)

Not subject to IMDG code.

Air Shipment (IATA)

Not subject to IATA regulations

US state regulations

Massachusetts RTK – Substance List		Not regulated
New Jersey Worker and Community Right-to-Know Law		
CAS Number [63148-62-9]	>60 wt%	Polydimethylsiloxane
Pennsylvania Worker and Community Right-to-Know Law		
CAS Number [63148-62-9]	>60 wt%	Polydimethylsiloxane
Rhode Island RTK		Not regulated
California Proposition 65		None known

International Inventories

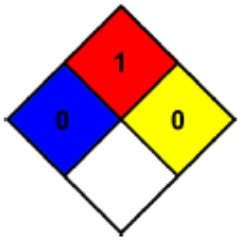
Polydimethylsiloxane [63148-62-9]
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing * New Chemical Substances) inventory
Listed on the Canadian Domestic Substances List (DSL)
Listed on KECI (Korean Existing Chemicals Inventory)
Listed on USA Toxic Substances Control Act (TSCA)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the AICS (Australian Inventory of Chemical Substances)

SECTION 16. Other information

This document was created on 5 May 2015.

NFPA ratings

Health: 0 – Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
Flammability: 1– Must be preheated before ignition can occur
Instability: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



DISCLAIMER

Information presented herein has been compiled from information provided to us by our suppliers and other sources considered to be dependable and are accurate and reliable to the best of our knowledge and belief but are not guaranteed to be so. We make no warranty as to the results to be obtained in using any material and since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.
All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, JULABO USA, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.