

# SAFETY DATA SHEET

## ALKEMIST™ THERMOLUBE-PG

Propylene Glycol-Based Industrial Coolant &amp; Heat Transfer Fluid | GHS / OSHA Format

# ALKEMIST™ THERMOLUBE-PG

## High-Performance Propylene Glycol Coolant & Antifreeze Fluid with Corrosion Inhibitors

### WARNING

**Chemical basis:** Aqueous solution containing Monopropylene Glycol (1,2-Propanediol), corrosion inhibitor package, pH buffers, and anti-foam additives.

**Primary hazards:** May cause mild skin and eye irritation upon prolonged contact; low acute systemic toxicity under normal industrial handling.

**Regulatory & Technical Notice:** This Safety Data Sheet provides comprehensive workplace hazard communication for ALKEMIST™ THERMOLUBE-PG in accordance with GHS Revision 8 and OSHA 29 CFR 1910.1200. Designed for industrial closed-loop cooling systems, HVAC chillers, food plant refrigeration, and automotive engine cooling. Wear appropriate personal protective equipment during handling.

### Document Control

|               |                                     |
|---------------|-------------------------------------|
| SDS NO.       | ALK-TLPG-SDS-001                    |
| VERSION       | 1.0                                 |
| ISSUE DATE    | September 2026                      |
| REVISION DATE | September 2026                      |
| SUPERSEDES    | Initial Release                     |
| APPLICATION   | Closed-Loop Heat Transfer / Coolant |

ALKEMIST® | Industrial & Specialty Chemicals

ALKEMIST® | WATER AND CHEMICALS SOLUTIONS (SMC-PRIVATE) LIMITED

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## ALKEMIST™ THERMOLUBE-PG

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### Supplier / Manufacturer

#### Alkemist | Water and Chemicals Solutions (SMC-PVT) LIMITED

Office No. 32, Usman Plaza, Alipur Road, Hafizabad City, Pakistan

WhatsApp Only: 0301 9220000

Email: admin@waterchemicalssolution.com

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### Table of Contents (16 GHS Sections)

|                                     |
|-------------------------------------|
| 1. Identification                   |
| 2. Hazard(s) Identification         |
| 3. Composition / Ingredients        |
| 4. First-Aid Measures               |
| 5. Fire-Fighting Measures           |
| 6. Accidental Release Measures      |
| 7. Handling and Storage             |
| 8. Exposure Controls / PPE          |
| 9. Physical and Chemical Properties |
| 10. Stability and Reactivity        |
| 11. Toxicological Information       |
| 12. Ecological Information          |
| 13. Disposal Considerations         |
| 14. Transport Information           |
| 15. Regulatory Information          |
| 16. Other Information               |

### ALKEMIST® | Industrial & Specialty Chemicals

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### SECTION 1: Identification

**PRODUCT NAME / IDENTIFIER** ALKEMIST™ THERMOLUBE-PG

|                             |                                                                                                                                        |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT CODE / REF.</b>  | ALK-THERMO-PG                                                                                                                          |
| <b>CHEMICAL DESCRIPTION</b> | Aqueous formulation of Monopropylene Glycol with corrosion inhibitors and buffers.                                                     |
| <b>RECOMMENDED USES</b>     | Industrial closed-loop cooling systems, HVAC chillers, food processing refrigeration, solar thermal loops, and engine cooling systems. |
| <b>USES ADVISED AGAINST</b> | Direct contact with strong oxidizers; open vaporization systems without proper ventilation.                                            |
| <b>MANUFACTURER DETAILS</b> | Alkemist   Water and Chemicals Solutions (SMC-PVT) LIMITED<br>Office No. 32, Usman Plaza, Alipur Road, Hafizabad City, Pakistan        |
| <b>EMERGENCY CONTACT</b>    | WhatsApp Only: 0301 9220000   Email: admin@waterchemicalssolution.com                                                                  |

### SECTION 2: Hazard(s) Identification

#### 2.1 GHS CLASSIFICATION OF SUBSTANCE OR MIXTURE

| HAZARD CLASS                           | CATEGORY    | HAZARD STATEMENT MAPPING                                                       |
|----------------------------------------|-------------|--------------------------------------------------------------------------------|
| <b>SKIN CORROSION / IRRITATION</b>     | Category 3  | Causes mild skin irritation (H316) - Optional classification for mild glycols. |
| <b>SERIOUS EYE DAMAGE / IRRITATION</b> | Category 2B | Causes eye irritation (H320).                                                  |

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### 2.2 GHS LABEL ELEMENTS

Signal Word

**WARNING**

Hazard Pictogram



Exclamation Mark (GHS07)

### 2.3 HAZARD STATEMENTS

| CODE | HAZARD STATEMENT TEXT        |
|------|------------------------------|
| H316 | Causes mild skin irritation. |
| H320 | Causes eye irritation.       |

### 2.4 PRECAUTIONARY STATEMENTS

|            |                                                                                                                                                                                                                                                                                                               |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PREVENTION | <p><b>P264: WASH SKIN THOROUGHLY AFTER HANDLING.</b></p> <p><b>P280: WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION.</b></p>                                                                                                                                                                           |
| RESPONSE   | <p>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.</p> <p>P332+P313: If skin irritation occurs: Get medical advice/attention.</p> <p>P337+P313: If eye irritation persists: Get medical advice/attention.</p> |
| STORAGE    | <p>P403+P233: Store in a well-ventilated place. Keep container tightly closed.</p>                                                                                                                                                                                                                            |

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### DISPOSAL

P501: Dispose of contents/container to an approved waste disposal facility in accordance with local and national regulations.

## SECTION 3: Composition / Information on Ingredients

| CHEMICAL NAME / COMPONENT              | CAS NUMBER  | GHS CLASSIFICATION                          | CONCENTRATION (% W/W) |
|----------------------------------------|-------------|---------------------------------------------|-----------------------|
| MONOPROPYLENE GLYCOL (1,2-PROPANEDIOL) | 57-55-6     | Not Classified (Unclassified)               | 30 - 95 %             |
| CORROSION INHIBITOR COMPLEX            | Proprietary | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319) | 1 - 3 %               |
| CARRIER                                | 7732-18-5   | Not Classified                              | Balance to 100%       |

## SECTION 4: First-Aid Measures

| ROUTE        | IMMEDIATE ACTION REQUIRED                                                                                         | MEDICAL FOLLOW-UP                                                           |
|--------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| INHALATION   | Move victim to fresh air. Keep patient warm and at rest.                                                          | Seek medical attention if respiratory irritation occurs.                    |
| SKIN CONTACT | Wash affected skin thoroughly with soap and running water.                                                        | Remove contaminated clothing. Get medical attention if irritation persists. |
| EYE CONTACT  | Immediately flush eyes with running water for 15 minutes, holding eyelids open. Remove contact lenses if present. | Consult an ophthalmologist if irritation continues.                         |
| INGESTION    | Rinse mouth with water. Do NOT induce vomiting unless advised by medical personnel. Give 1-2 glasses of water.    | Call a POISON CENTER or physician if large amount is swallowed.             |

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### SECTION 5: Fire-Fighting Measures

**SUITABLE EXTINGUISHING MEDIA**

**WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL POWDER, OR CARBON DIOXIDE (CO<sub>2</sub>).**

**SPECIFIC HAZARDS**

Thermal decomposition may release carbon oxides (CO, CO<sub>2</sub>) and acrid smoke. Combustible at high temperatures above flash point.

**PROTECTIVE EQUIPMENT**

Wear self-contained breathing apparatus (SCBA) and full protective firefighting gear.

### SECTION 6: Accidental Release Measures

**PERSONAL PRECAUTIONS**

**USE PERSONAL PROTECTIVE EQUIPMENT (GLOVES, SAFETY GOGGLES). FLOOR MAY BE SLIPPERY WHERE SPILLED. ENSURE VENTILATION.**

**ENVIRONMENTAL PRECAUTIONS**

Prevent uncontained product from entering storm drains, soil, or natural waterways.

**CLEANUP & CONTAINMENT**

Absorb spill with inert material (sand, earth, vermiculite). Collect into leak-tight containers for disposal. Wash down area with water.

### SECTION 7: Handling and Storage

**SAFE HANDLING**

**WEAR RECOMMENDED PPE. AVOID CONTACT WITH EYES AND SKIN. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.**

**STORAGE CONDITIONS**

Store in original containers in a cool, dry, well-ventilated area between 5°C and 45°C away from strong oxidizing agents.

**MATERIALS COMPATIBILITY**

Compatible with carbon steel, stainless steel, copper, brass, HDPE, PP, and PVC. Avoid strong acids and strong caustics.

### SECTION 8: Exposure Controls / Personal Protection

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| COMPONENT            | OSHA PEL (TWA)  | ACGIH TLV (TWA) | AIHA WEEL (TWA)                |
|----------------------|-----------------|-----------------|--------------------------------|
| MONOPROPYLENE GLYCOL | Not Established | Not Established | 10 mg/m <sup>3</sup> (Aerosol) |

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

| EYE / FACE PROTECTION  | CHEMICAL SPLASH GOGGLES OR SAFETY GLASSES (ANSI Z87.1 / EN 166).                   |
|------------------------|------------------------------------------------------------------------------------|
| HAND PROTECTION        | Chemical-resistant gloves (Nitrile, Neoprene, or PVC).                             |
| SKIN / BODY            | Protective work apron and closed-toe footwear.                                     |
| RESPIRATORY PROTECTION | Normally not required unless misting occurs; use particulate respirator if needed. |

## SECTION 9: Physical and Chemical Properties

| PROPERTY                     | VALUE / SPECIFICATION                                                   |
|------------------------------|-------------------------------------------------------------------------|
| APPEARANCE                   | Clear, colourless to pale yellow liquid (dye added if specified)        |
| ODOUR                        | Mild, characteristic odour                                              |
| PH (AS IS @ 25°C)            | <b>8.5 - 10.0 (Buffered Alkaline)</b>                                   |
| SPECIFIC GRAVITY (SG @ 20°C) | <b>1.02 - 1.05 g/cm<sup>3</sup></b> (Depending on glycol concentration) |
| SOLUBILITY IN WATER          | Complete / 100% Miscible                                                |
| FLASH POINT                  | > 99°C (> 210°F) Closed Cup                                             |
| BOILING POINT                | > 105°C (> 221°F)                                                       |

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### SECTION 10: Stability and Reactivity

#### CHEMICAL STABILITY

STABLE UNDER NORMAL AMBIENT TEMPERATURE AND STORAGE CONDITIONS.

#### INCOMPATIBLE MATERIALS

Strong oxidizing agents, strong acids, strong alkalies.

#### HAZARDOUS REACTIONS

None under normal industrial processing. Hazardous polymerization will not occur.

### SECTION 11: Toxicological Information

#### ENDPOINT

#### EVALUATION / RESULT

ACUTE ORAL TOXICITY

Oral LD50 (Rat): > 20,000 mg/kg (Very low toxicity)

ACUTE DERMAL TOXICITY

Dermal LD50 (Rabbit): > 20,000 mg/kg

SKIN CORROSION / IRRITATION

Causes mild skin irritation upon prolonged contact.

SERIOUS EYE DAMAGE / IRRITATION

Causes eye irritation.

CARCINOGENICITY

Not classified as a carcinogen by IARC, NTP, or OSHA.

### SECTION 12: Ecological Information

#### ECOTOXICITY

LOW ACUTE TOXICITY TO FISH AND AQUATIC INVERTEBRATES. LC50 (96H) > 10,000 MG/L.

#### PERSISTENCE & DEGRADABILITY

Readily biodegradable in aquatic and soil environments.

#### BIOACCUMULATIVE POTENTIAL

Low potential for bioaccumulation (BCF < 1).

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### SECTION 13: Disposal Considerations

**Waste Treatment:** Dispose of spent coolant or waste fluid in accordance with municipal, regional, and national environmental regulations. Do not discharge uncontrolled into open waterways or stormwater drains.

### SECTION 14: Transport Information

| TRANSPORT MODAL            | UN NUMBER     | PROPER SHIPPING NAME                        | CLASS         | PACKING GROUP |
|----------------------------|---------------|---------------------------------------------|---------------|---------------|
| US DOT / ADR / IMDG / IATA | Not Regulated | Non-Hazardous Heat Transfer Fluid / Coolant | Not Regulated | None          |

\*Note: ALKEMIST™ THERMOLUBE-PG is not classified as a hazardous material for transport under DOT, IMDG, or IATA regulations.

### SECTION 15: Regulatory Information

| NATIONAL REGULATIONS      | COMPLIES WITH LOCAL INDUSTRIAL CHEMICAL HANDLING, SAFETY, AND ENVIRONMENTAL PROTECTION GUIDELINES IN PAKISTAN. |
|---------------------------|----------------------------------------------------------------------------------------------------------------|
| OSHA HAZARD COMMUNICATION | Classified as minor irritant under 29 CFR 1910.1200.                                                           |
| TSCA INVENTORY            | All chemical components are listed on or exempt from the TSCA Chemical Substance Inventory.                    |

### SECTION 16: Other Information

#### 16.1 HAZARD RATING SYSTEMS (NFPA 704 & HMIS)

##### NFPA 704 Rating

**Health:** 1 (Slight)  
**Flammability:** 1 (Slight)  
**Instability:** 0 (Minimal)  
**Special:** None

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### HMIS Rating

**Health:** 1 (Slight)

**Flammability:** 1 (Slight)

**Physical Hazard:** 0 (Minimal)

**Personal Protection:** B (Goggles + Gloves)

### 16.2 DOCUMENT METADATA

| VERSION | RELEASE DATE   | DESCRIPTION                                                                                                                                                          |
|---------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.0     | September 2026 | Initial official release of GHS Safety Data Sheet for ALKEMIST™ THERMOLUBE-PG manufactured by Alkemist   Water and Chemicals Solutions (SMC-PVT) LIMITED, Hafizabad. |

### 16.3 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 guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. Alkemist | Water and Chemicals Solutions (SMC-PVT) LIMITED assumes no legal responsibility for use or reliance upon these data.

\*\*\* END OF SAFETY DATA SHEET - ALKEMIST™ THERMOLUBE-PG \*\*\*

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