

# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Issue date: 9/3/2024 Revision date: 9/3/2027

Version: 1.4



### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Reco-COOL HD Premium-N Summer Concentrate  
Product code : Reco-COOL HD Premium-N Summer Concentrate  
Product group : Trade product

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Anti-freezing agent

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Improchem (Pty) Ltd T/A AECI Water  
1 Wharhirst Road  
Umbogintwini - South Africa  
T +27 (031) 949 8200

#### 1.4. Emergency telephone number

Emergency number : 0800 SPILLS OR 0800 774557

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302

Full text of H- and EUH-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice. Harmful if swallowed.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning  
Hazard statements (CLP) : H302 - Harmful if swallowed.  
Precautionary statements (CLP) : P260 - Do not breathe dusts or mists.  
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

#### 2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

3.2. Mixtures

| Name                                                                   | Product identifier                                                                                     | %       | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------|
| ETHYLENE GLYCOL<br>substance with a Community workplace exposure limit | (CAS-No.) 107-21-1<br>(EC-No.) 203-473-3<br>(EC Index-No.) 603-027-00-1<br>(REACH-no) 01-2119456816-28 | 65 - 85 | Acute Tox. 4 (Oral), H302                                       |

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a poison center or a doctor if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell. Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Dry/sore throat. Irritation of the nasal mucous membranes.
- Symptoms/effects after skin contact : Causes skin irritation.
- Symptoms/effects after eye contact : ON CONTINUOUS EXPOSURE/CONTACT: Irritation of the eye tissue. Redness of the eye tissue. Lacrimation.
- Symptoms/effects after ingestion : AFTER ABSORPTION OF HIGH QUANTITIES: Feeling of weakness. Central nervous system depression. Nausea. Vomiting. Gastrointestinal complaints. Difficulty in swallowing. Headache. Dizziness. Narcosis. Drunkenness. Disturbed tactile sensibility. Disturbed motor response. Visual disturbances. Disturbances of consciousness. Brain affection. Accelerated heart action. Low arterial pressure. Change in the haemogramme/blood composition. Rapid respiration. Cramps/uncontrolled muscular contractions. FOLLOWING SYMPTOMS MAY APPEAR LATER: Blue/grey discolouration of the skin. Decreased renal function. Change in urine composition. Change in urine output.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : DIRECT FIRE HAZARD. Combustible. INDIRECT FIRE HAZARD. Temperature above flashpoint: higher fire/explosion hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
- Explosion hazard : No direct explosion hazard.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.
- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Ventilate area. REQUIRED PERSONAL PROTECTIVE EQUIPMENT WHEN PROCESSING PRODUCT.

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. See "Material-Handling" to select protective clothing.
- Emergency procedures : Ventilate spillage area.

# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

|                                                                  |                                                                                                                                                               |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>6.1.2. For emergency responders</b>                           |                                                                                                                                                               |
| Protective equipment                                             | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".   |
| Emergency procedures                                             | : Evacuate unnecessary personnel. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Ventilate area. |
| <b>6.2. Environmental precautions</b>                            |                                                                                                                                                               |
| Avoid release to the environment.                                |                                                                                                                                                               |
| <b>6.3. Methods and material for containment and cleaning up</b> |                                                                                                                                                               |
| For containment                                                  | : Stop leak without risks if possible. Cover spill with non combustible material, e.g.: sand, earth, vermiculite.                                             |
| Methods for cleaning up                                          | : Take up liquid spill into absorbent material. Scoop absorbed substance into closing containers.                                                             |
| Other information                                                | : Dispose of materials or solid residues at an authorized site.                                                                                               |
| <b>6.4. Reference to other sections</b>                          |                                                                                                                                                               |
| For further information refer to section 13.                     |                                                                                                                                                               |

|                                                                          |                                                                                                                                                                                              |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SECTION 7: Handling and storage</b>                                   |                                                                                                                                                                                              |
| <b>7.1. Precautions for safe handling</b>                                |                                                                                                                                                                                              |
| Precautions for safe handling                                            | : Ensure good ventilation of the work station. Wear personal protective equipment.                                                                                                           |
| Hygiene measures                                                         | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.                                                                                          |
| <b>7.2. Conditions for safe storage, including any incompatibilities</b> |                                                                                                                                                                                              |
| Technical measures                                                       | : Ensure adequate ventilation, especially in confined areas. Facilities: shower, eye shower. Protect from freezing. Store in a well-ventilated place. Keep container tightly closed.         |
| Storage conditions                                                       | : Store in a well-ventilated place. Keep cool.                                                                                                                                               |
| Incompatible products                                                    | : Strong acids. Oxidizing agent. Strong bases.                                                                                                                                               |
| Heat and ignition sources                                                | : KEEP SUBSTANCE AWAY FROM: heat sources.                                                                                                                                                    |
| Information on mixed storage                                             | : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) acids. (strong) bases. water/moisture.                                                                         |
| Storage area                                                             | : Store in a dry area. Ventilation at floor level. Fireproof storeroom. Keep locked up. Under a shelter/in the open. Underground. May be stored under nitrogen. Meet the legal requirements. |
| Special rules on packaging                                               | : SPECIAL REQUIREMENTS: closing. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.                                                 |
| Packaging materials                                                      | : SUITABLE MATERIAL: stainless steel. carbon steel. steel with plastic inner lining. glass.                                                                                                  |
| <b>7.3. Specific end use(s)</b>                                          |                                                                                                                                                                                              |
| No additional information available                                      |                                                                                                                                                                                              |

|                                                           |                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SECTION 8: Exposure controls/personal protection</b>   |                                                                                                                                                                                                                                                                        |
| <b>8.1. Control parameters</b>                            |                                                                                                                                                                                                                                                                        |
| <b>Reco-COOL HD Premium-N Summer Concentrate</b>          |                                                                                                                                                                                                                                                                        |
| <b>EU - Indicative Occupational Exposure Limit (IOEL)</b> |                                                                                                                                                                                                                                                                        |
| Local name                                                | Ethylene glycol                                                                                                                                                                                                                                                        |
| IOEL TWA                                                  | 52 mg/m³ (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)                                                                                                                                                 |
| IOEL TWA [ppm]                                            | 20 ppm (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)                                                                                                                                                   |
| IOEL STEL                                                 | 104 mg/m³ (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)                                                                                                                                                                        |
| IOEL STEL [ppm]                                           | 40 ppm (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)                                                                                                                                                                           |
| Remark                                                    | Skin                                                                                                                                                                                                                                                                   |
| <b>United Kingdom - Occupational Exposure Limits</b>      |                                                                                                                                                                                                                                                                        |
| Local name                                                | Ethane-1,2-diol                                                                                                                                                                                                                                                        |
| WEL TWA (OEL TWA) [1]                                     | 10 mg/m³ Ethane-1,2-diol particulate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Ethane-1,2-diol vapour; 52 mg/m³; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005) |

# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| Reco-COOL HD Premium-N Summer Concentrate  |                                                                                                                                                             |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WEL TWA (OEL TWA) [2]                      | 20 ppm Ethane-1,2-diol vapour; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)                               |
| WEL STEL (OEL STEL)                        | 104 mg/m³ Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)                                                    |
| WEL STEL (OEL STEL) [ppm]                  | 40 ppm Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)                                                       |
| Remark                                     | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity) |
| USA - ACGIH - Occupational Exposure Limits |                                                                                                                                                             |
| Local name                                 | Ethylene glycol                                                                                                                                             |
| ACGIH OEL TWA                              | 10 mg/m³                                                                                                                                                    |
| ACGIH OEL C                                | 100 mg/m³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)                                                                                      |
| Remark (ACGIH)                             | URT & eye irr                                                                                                                                               |

| ETHYLENE GLYCOL (107-21-1)                         |                                                                                                                                                                                                                                                                        |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EU - Indicative Occupational Exposure Limit (IOEL) |                                                                                                                                                                                                                                                                        |
| Local name                                         | Ethylene glycol                                                                                                                                                                                                                                                        |
| IOEL TWA                                           | 52 mg/m³ (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)                                                                                                                                                 |
| IOEL TWA [ppm]                                     | 20 ppm (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)                                                                                                                                                   |
| IOEL STEL                                          | 104 mg/m³ (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)                                                                                                                                                                        |
| IOEL STEL [ppm]                                    | 40 ppm (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)                                                                                                                                                                           |
| Remark                                             | Skin                                                                                                                                                                                                                                                                   |
| United Kingdom - Occupational Exposure Limits      |                                                                                                                                                                                                                                                                        |
| Local name                                         | Ethane-1,2-diol                                                                                                                                                                                                                                                        |
| WEL TWA (OEL TWA) [1]                              | 10 mg/m³ Ethane-1,2-diol particulate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Ethane-1,2-diol vapour; 52 mg/m³; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005) |
| WEL TWA (OEL TWA) [2]                              | 20 ppm Ethane-1,2-diol vapour; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)                                                                                                                                          |
| WEL STEL (OEL STEL)                                | 104 mg/m³ Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)                                                                                                                                                               |
| WEL STEL (OEL STEL) [ppm]                          | 40 ppm Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)                                                                                                                                                                  |
| Remark                                             | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)                                                                                                            |
| USA - ACGIH - Occupational Exposure Limits         |                                                                                                                                                                                                                                                                        |
| Local name                                         | Ethylene glycol                                                                                                                                                                                                                                                        |
| ACGIH OEL TWA                                      | 10 mg/m³                                                                                                                                                                                                                                                               |
| ACGIH OEL C                                        | 100 mg/m³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)                                                                                                                                                                                                 |
| Remark (ACGIH)                                     | URT & eye irr                                                                                                                                                                                                                                                          |

# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

DNEL : 35 mg/m<sup>3</sup>

| Reco-COOL HD Premium-N Summer Concentrate |                           |                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EU                                        | Local name                | Ethylene glycol                                                                                                                                                                                                                                                                                 |
| EU                                        | IOEL TWA                  | 52 mg/m <sup>3</sup> (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)                                                                                                                                                              |
| EU                                        | IOEL TWA [ppm]            | 20 ppm (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)                                                                                                                                                                            |
| EU                                        | IOEL STEL                 | 104 mg/m <sup>3</sup> (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)                                                                                                                                                                                     |
| EU                                        | IOEL STEL [ppm]           | 40 ppm (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)                                                                                                                                                                                                    |
| EU                                        | Remark                    | Skin                                                                                                                                                                                                                                                                                            |
| United Kingdom                            | Local name                | Ethane-1,2-diol                                                                                                                                                                                                                                                                                 |
| United Kingdom                            | WEL TWA (OEL TWA) [1]     | 10 mg/m <sup>3</sup> Ethane-1,2-diol particulate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Ethane-1,2-diol vapour; 52 mg/m <sup>3</sup> ; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005) |
| United Kingdom                            | WEL TWA (OEL TWA) [2]     | 20 ppm Ethane-1,2-diol vapour; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)                                                                                                                                                                   |
| United Kingdom                            | WEL STEL (OEL STEL)       | 104 mg/m <sup>3</sup> Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)                                                                                                                                                                            |
| United Kingdom                            | WEL STEL (OEL STEL) [ppm] | 40 ppm Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)                                                                                                                                                                                           |
| United Kingdom                            | Remark                    | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)                                                                                                                                     |
| USA - ACGIH                               | Local name                | Ethylene glycol                                                                                                                                                                                                                                                                                 |
| USA - ACGIH                               | ACGIH OEL TWA             | 10 mg/m <sup>3</sup>                                                                                                                                                                                                                                                                            |
| USA - ACGIH                               | ACGIH OEL C               | 100 mg/m <sup>3</sup> (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)                                                                                                                                                                                                              |
| USA - ACGIH                               | Remark (ACGIH)            | URT & eye irr                                                                                                                                                                                                                                                                                   |
| ETHYLENE GLYCOL (107-21-1)                |                           |                                                                                                                                                                                                                                                                                                 |
| EU                                        | Local name                | Ethylene glycol                                                                                                                                                                                                                                                                                 |
| EU                                        | IOEL TWA                  | 52 mg/m <sup>3</sup> (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)                                                                                                                                                              |
| EU                                        | IOEL TWA [ppm]            | 20 ppm (Ethylene glycol; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)                                                                                                                                                                            |
| EU                                        | IOEL STEL                 | 104 mg/m <sup>3</sup> (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)                                                                                                                                                                                     |
| EU                                        | IOEL STEL [ppm]           | 40 ppm (Ethylene glycol; EU; Short time value; Indicative occupational exposure limit value)                                                                                                                                                                                                    |
| EU                                        | Remark                    | Skin                                                                                                                                                                                                                                                                                            |
| United Kingdom                            | Local name                | Ethane-1,2-diol                                                                                                                                                                                                                                                                                 |
| United Kingdom                            | WEL TWA (OEL TWA) [1]     | 10 mg/m <sup>3</sup> Ethane-1,2-diol particulate; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005); Ethane-1,2-diol vapour; 52 mg/m <sup>3</sup> ; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005) |
| United Kingdom                            | WEL TWA (OEL TWA) [2]     | 20 ppm Ethane-1,2-diol vapour; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)                                                                                                                                                                   |
| United Kingdom                            | WEL STEL (OEL STEL)       | 104 mg/m <sup>3</sup> Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)                                                                                                                                                                            |
| United Kingdom                            | WEL STEL (OEL STEL) [ppm] | 40 ppm Ethane-1,2-diol vapour; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)                                                                                                                                                                                           |

# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| ETHYLENE GLYCOL (107-21-1) |                |                                                                                                                                                             |
|----------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| United Kingdom             | Remark         | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity) |
| USA - ACGIH                | Local name     | Ethylene glycol                                                                                                                                             |
| USA - ACGIH                | ACGIH OEL TWA  | 10 mg/m³                                                                                                                                                    |
| USA - ACGIH                | ACGIH OEL C    | 100 mg/m³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)                                                                                      |
| USA - ACGIH                | Remark (ACGIH) | URT & eye irr                                                                                                                                               |

DNEL : 35 mg/m³

### 8.2. Exposure controls

|                                   |                                                                                                                                                                                                                                                                       |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appropriate engineering controls  | : Ensure good ventilation of the work station.                                                                                                                                                                                                                        |
| Personal protective equipment     | : Gloves, shoulder length. Insufficient ventilation: wear respiratory protection. Protective clothing. Protective goggles. Safety Boots.                                                                                                                              |
| Materials for protective clothing | : Excellent resistance: Butyl rubber. Natural rubber. Neoprene. Nitrile rubber. Polyethylene. Polyvinylchloride (PVC). Tetrafluoroethylene. Viton. Polyethylene/ethylenevinylalcohol. Good resistance: Chlorinated polyethylene. Polyurethane. Polyvinylalcohol (PVA) |
| Hand protection                   | : Gloves, shoulder length                                                                                                                                                                                                                                             |
| Eye protection                    | : Protective goggles                                                                                                                                                                                                                                                  |
| Skin and body protection          | : Wear suitable protective clothing                                                                                                                                                                                                                                   |
| Respiratory protection            | : In case of insufficient ventilation, wear suitable respiratory equipment                                                                                                                                                                                            |



|                                 |                                                              |
|---------------------------------|--------------------------------------------------------------|
| Environmental exposure controls | : Avoid release to the environment.                          |
| Consumer exposure controls      | : Recommended personal protective equipment when processing. |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                                 |                                                                                                                                 |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Physical state                                  | : Liquid                                                                                                                        |
| Appearance                                      | : Viscous.                                                                                                                      |
| Colour                                          | : Yellow.                                                                                                                       |
| Odour                                           | : Odourless.                                                                                                                    |
| Odour threshold                                 | : No data available                                                                                                             |
| pH                                              | : No data available                                                                                                             |
| pH solution                                     | : 30 (7.5 – 9) %                                                                                                                |
| Relative evaporation rate (butylacetate=1)      | : No data available                                                                                                             |
| Melting point                                   | : Not applicable                                                                                                                |
| Freezing point                                  | : -13 °C                                                                                                                        |
| Boiling point                                   | : 197 °C                                                                                                                        |
| Flash point                                     | : > 116.1 °C                                                                                                                    |
| Auto-ignition temperature                       | : 412 °C                                                                                                                        |
| Decomposition temperature                       | : No data available                                                                                                             |
| Flammability                                    | : Non flammable.                                                                                                                |
| Vapour pressure                                 | : 0.006 mm Hg                                                                                                                   |
| Relative vapour density at 20°C                 | : 2.1                                                                                                                           |
| Relative density                                | : No data available                                                                                                             |
| Density                                         | : 1.115 – 1.145 g/l (@ 15 C)                                                                                                    |
| Solubility                                      | : Soluble in water. Soluble in methanol. Soluble in Diethyl ether.<br>Water: Complete<br>Ethanol: Complete<br>Acetone: Complete |
| Partition coefficient n-octanol/water (Log Pow) | : No data available                                                                                                             |

# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

|                      |                     |
|----------------------|---------------------|
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic   | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits     | : 3.2 – 15.3 vol %  |

### 9.2. Other information

|                          |                                                                                                               |
|--------------------------|---------------------------------------------------------------------------------------------------------------|
| Specific conductivity    | : 116 µS/m                                                                                                    |
| Saturation concentration | : 0.31 g/m³                                                                                                   |
| VOC content              | : 0 %                                                                                                         |
| Other properties         | : Gas/vapour heavier than air at 20°C. Clear. Hygroscopic. Slightly volatile. Substance has neutral reaction. |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts on exposure to water and heat with (some) metals. Reacts on exposure to temperature rise with (some) bases. Upon combustion: CO and CO2 are formed.

### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

Strong acids. Strong bases. Oxidizing agent.

### 10.6. Hazardous decomposition products

carbon oxides (CO and CO2).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                        |                                               |
|------------------------|-----------------------------------------------|
| Acute toxicity         | : Harmful if swallowed.                       |
| Additional information | : Approximately 100 ml ingested can be fatal. |

| Reco-COOL HD Premium-N Summer Concentrate |              |
|-------------------------------------------|--------------|
| LD50 oral rat                             | > 4700 mg/kg |
| LD50 dermal rabbit                        | 9530 mg/kg   |
| ATE CLP (dust,mist)                       | 5000 mg/m³   |

| ETHYLENE GLYCOL (107-21-1)        |                                      |
|-----------------------------------|--------------------------------------|
| LD50 oral rat                     | > 5000 mg/kg (Rat; Literature study) |
| LD50 oral                         | 7712 mg/kg bodyweight                |
| LD50 dermal                       | 10600 mg/kg bodyweight               |
| LC50 Inhalation - Rat (Dust/Mist) | > 2500 mg/m³                         |

|                                   |                                                                                                                                                 |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin corrosion/irritation         | : Not classified                                                                                                                                |
| Additional information            | : Prolonged or repeated contact with the skin may cause dermatitis                                                                              |
| Serious eye damage/irritation     | : Irritating to eyes                                                                                                                            |
| Respiratory or skin sensitisation | : Not classified                                                                                                                                |
| Additional information            | : Prolonged or repeated contact with the skin may cause dermatitis                                                                              |
| Germ cell mutagenicity            | : Not classified                                                                                                                                |
| Carcinogenicity                   | : Not classified                                                                                                                                |
| Reproductive toxicity             | : Laboratory experiments have shown teratogenic effects . Overexposure mayu cause reproductive disorders based on tests with laboratory animals |
| STOT-single exposure              | : Not classified                                                                                                                                |
| STOT-repeated exposure            | : Damage of the kidneys can occur                                                                                                               |
| Aspiration hazard                 | : Not classified                                                                                                                                |



# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 12: Ecological information

#### 12.1. Toxicity

|                   |                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------|
| Ecology - general | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Ecology - air     | : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). TA-Luft Klasse 5.2.5/I.               |

| Reco-COOL HD Premium-N Summer Concentrate |                                          |
|-------------------------------------------|------------------------------------------|
| LC50 - Fish [1]                           | > 100 mg/l                               |
| LC50 - Other aquatic organisms [1]        | > 100 mg/l                               |
| EC50 - Other aquatic organisms [2]        |                                          |
| EC50 72h - Algae [1]                      | > 100 mg/l                               |
| ETHYLENE GLYCOL (107-21-1)                |                                          |
| LC50 - Fish [1]                           | 18500 mg/l (Oncorhynchus mykiss)         |
| LC50 - Fish [2]                           | 40761 mg/l (LC50; 96 h; Salmo gairdneri) |
| EC50 - Crustacea [1]                      | > 74000 mg/l (EC50; 24 h)                |
| EC50 - Other aquatic organisms [1]        | > 100 mg/l EC50 waterflea (48 h)         |
| EC50 - Other aquatic organisms [2]        | 6500 mg/l IC50 alga (72 h) mg/l          |

#### 12.2. Persistence and degradability

| Reco-COOL HD Premium-N Summer Concentrate |                                                            |
|-------------------------------------------|------------------------------------------------------------|
| Persistence and degradability             | Readily biodegradable in water. Biodegradable in the soil. |
| Biochemical oxygen demand (BOD)           | 0.47 g O <sub>2</sub> /g substance                         |
| Chemical oxygen demand (COD)              | 1.24 g O <sub>2</sub> /g substance                         |
| ThOD                                      | 1.29 g O <sub>2</sub> /g substance                         |
| BOD (% of ThOD)                           | 0.36                                                       |
| ETHYLENE GLYCOL (107-21-1)                |                                                            |
| Persistence and degradability             | Readily biodegradable in water. Biodegradable in the soil. |
| Biochemical oxygen demand (BOD)           | 0.47 g O <sub>2</sub> /g substance                         |
| Chemical oxygen demand (COD)              | 1.24 g O <sub>2</sub> /g substance                         |
| ThOD                                      | 1.29 g O <sub>2</sub> /g substance                         |
| BOD (% of ThOD)                           | 0.36                                                       |

#### 12.3. Bioaccumulative potential

| Reco-COOL HD Premium-N Summer Concentrate       |                                                |
|-------------------------------------------------|------------------------------------------------|
| BCF - Fish [1]                                  | 10 (BCF; 72 h)                                 |
| BCF - Other aquatic organisms [1]               | 0.21 – 0.6 (BCF)                               |
| BCF - Other aquatic organisms [2]               | 190 (BCF; 24 h)                                |
| Bioconcentration factor (BCF REACH)             | 0.6                                            |
| Bioaccumulative potential                       | Low potential for bioaccumulation (BCF < 500). |
| ETHYLENE GLYCOL (107-21-1)                      |                                                |
| BCF - Fish [1]                                  | 10 (BCF; 72 h)                                 |
| BCF - Other aquatic organisms [1]               | 0.21 – 0.6 (BCF)                               |
| BCF - Other aquatic organisms [2]               | 190 (BCF; 24 h)                                |
| Bioconcentration factor (BCF REACH)             | 0.6                                            |
| Partition coefficient n-octanol/water (Log Pow) | -1.34 (Experimental value)                     |
| Bioaccumulative potential                       | Low potential for bioaccumulation (BCF < 500). |

#### 12.4. Mobility in soil

| Reco-COOL HD Premium-N Summer Concentrate |                   |
|-------------------------------------------|-------------------|
| Surface tension                           | 0.048 N/m (20 °C) |
| ETHYLENE GLYCOL (107-21-1)                |                   |
| Surface tension                           | 0.048 N/m (20 °C) |

#### 12.5. Results of PBT and vPvB assessment

| Reco-COOL HD Premium-N Summer Concentrate     |                                                                                               |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------|
| PBT: not relevant – no registration required  |                                                                                               |
| vPvB: not relevant – no registration required |                                                                                               |
| Component                                     |                                                                                               |
| ETHYLENE GLYCOL (107-21-1)                    | PBT: not relevant – no registration required<br>vPvB: not relevant – no registration required |



# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|                                            |                                                                                               |
|--------------------------------------------|-----------------------------------------------------------------------------------------------|
| Regional waste regulation                  | : Disposal must be done according to official regulations.                                    |
| Waste treatment methods                    | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations            | : Disposal must be done according to official regulations.                                    |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations.                                    |
| Additional information                     | : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC. |
| Ecology - waste materials                  | : Avoid release to the environment.                                                           |
| European List of Waste (LoW, EC 2000/532)  | : 07 01 04* - other organic solvents, washing liquids and mother liquors                      |

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

|               |                  |
|---------------|------------------|
| UN-No. (ADR)  | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |

### 14.2. UN proper shipping name

|                             |                  |
|-----------------------------|------------------|
| Proper Shipping Name (ADR)  | : Not applicable |
| Proper Shipping Name (IMDG) | : Not applicable |
| Proper Shipping Name (IATA) | : Not applicable |

### 14.3. Transport hazard class(es)

#### ADR

|                                  |                  |
|----------------------------------|------------------|
| Transport hazard class(es) (ADR) | : Not applicable |
|----------------------------------|------------------|

#### IMDG

|                                   |                  |
|-----------------------------------|------------------|
| Transport hazard class(es) (IMDG) | : Not applicable |
|-----------------------------------|------------------|

#### IATA

|                                   |                  |
|-----------------------------------|------------------|
| Transport hazard class(es) (IATA) | : Not applicable |
|-----------------------------------|------------------|

### 14.4. Packing group

|                      |                  |
|----------------------|------------------|
| Packing group (ADR)  | : Not applicable |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | : Not applicable |

### 14.5. Environmental hazards

|                               |                                          |
|-------------------------------|------------------------------------------|
| Dangerous for the environment | : No                                     |
| Marine pollutant              | : No                                     |
| Other information             | : No supplementary information available |

### 14.6. Special precautions for user

#### - Overland transport

|                             |               |
|-----------------------------|---------------|
| Transport regulations (ADR) | : Not subject |
|-----------------------------|---------------|

#### - Transport by sea

|                              |               |
|------------------------------|---------------|
| Transport regulations (IMDG) | : Not subject |
|------------------------------|---------------|

#### - Air transport

|                              |               |
|------------------------------|---------------|
| Transport regulations (IATA) | : Not subject |
|------------------------------|---------------|

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU-Regulations

- Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)
- Contains no substance(s) listed on the REACH Candidate List
- Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

VOC content : 0 %

##### 15.1.2. National regulations

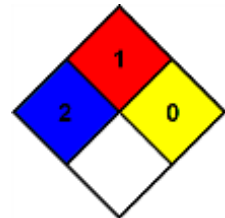
No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



#### Abbreviations and acronyms:

|        |                                                                                                 |
|--------|-------------------------------------------------------------------------------------------------|
| ADN    | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR    | European Agreement concerning the International Carriage of Dangerous Goods by Road             |
| ATE    | Acute Toxicity Estimate                                                                         |
| BCF    | Bioconcentration factor                                                                         |
| BLV    | Biological limit value                                                                          |
| BOD    | Biochemical oxygen demand (BOD)                                                                 |
| COD    | Chemical oxygen demand (COD)                                                                    |
| DMEL   | Derived Minimal Effect level                                                                    |
| DNEL   | Derived-No Effect Level                                                                         |
| EC-No. | European Community number                                                                       |
| EC50   | Median effective concentration                                                                  |
| EN     | European Standard                                                                               |
| IARC   | International Agency for Research on Cancer                                                     |
| IATA   | International Air Transport Association                                                         |
| IMDG   | International Maritime Dangerous Goods                                                          |
| LC50   | Median lethal concentration                                                                     |
| LD50   | Median lethal dose                                                                              |
| LOAEL  | Lowest Observed Adverse Effect Level                                                            |
| NOAEC  | No-Observed Adverse Effect Concentration                                                        |
| NOAEL  | No-Observed Adverse Effect Level                                                                |
| NOEC   | No-Observed Effect Concentration                                                                |
| OECD   | Organisation for Economic Co-operation and Development                                          |
| OEL    | Occupational Exposure Limit                                                                     |
| PBT    | Persistent Bioaccumulative Toxic                                                                |
| PNEC   | Predicted No-Effect Concentration                                                               |
| RID    | Regulations concerning the International Carriage of Dangerous Goods by Rail                    |
| SDS    | Safety Data Sheet                                                                               |
| STP    | Sewage treatment plant                                                                          |
| ThOD   | Theoretical oxygen demand (ThOD)                                                                |
| TLM    | Median Tolerance Limit                                                                          |
| VOC    | Volatile Organic Compounds                                                                      |

# Reco-COOL HD Premium-N Summer Concentrate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

|         |                                          |
|---------|------------------------------------------|
| CAS-No. | Chemical Abstract Service number         |
| N.O.S.  | Not Otherwise Specified                  |
| vPvB    | Very Persistent and Very Bioaccumulative |
| ED      | Endocrine disrupting properties          |

Full text of H- and EUH-statements:

|                     |                                   |
|---------------------|-----------------------------------|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| H302                | Harmful if swallowed.             |

SDS ImproChem Test

*"DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued IMPROCHEM T/A AECI Water MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether AECI Water's product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of the AECI Water product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate AECI Water product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. AECI Water provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, AECI Water makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from AECI Water."*