1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: Zerex G05 Coolant – Pre-Mix

Synonyms: Zerex G05 Coolant – Pre-Mix, 1 Litre
Zerex G05 Coolant – Pre-Mix, 5 Litres
Zerex G05 Coolant – Pre-Mix, 208 Litres

Recommended use: Engine coolant – Pre-Mix

Supplier: Valvoline (Australia) Pty Ltd
ABN: 86 000 446 855
Street Address: Level 6, 2 Burbank Place
Baulkham Hills NSW 2153
Australia

Telephone: (02) 9609-7999
Facsimile: (02) 9604-5127

Mancode: 0940.01

Supplier: Ashland New Zealand Limited
ABN: AK521039
Street Address: Level 2, 703 Rosebank Road
Avondale Auckland 1026
New Zealand

Telephone: +64 (0)9 820-4305
Facsimile: +64 (0)9 820-4304

For emergency product information contact Valvoline Technical Hotline for Australia - 1800 804 658
or New Zealand – 0061 2 8603 2300. Hours of operations are Monday to Friday, 8:30 am - 4:30 pm
Australian EST.

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.

Signal Word
Warning

Hazard Classification
Acute Toxicity – Oral – Category 4
Specific Target Organ Toxicity (Repeated Exposure) – Category 2

Hazard Statement(s)
H302 Harmful if swallowed
H373 May cause damage to organs through prolonged or repeated exposure

Prevention Precautionary Statement(s)
P102 Keep out of reach of children
P103 Read label before use
P260 Do not breathe dust, fume, gas, mist, vapours or spray
P264 Wash hands, face and all exposed skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
Response Precautionary Statement(s)
P101 If medical advice is needed, have product container or label at hand
P314 Get Medical advice/attention if you feel unwell
P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P330 Rinse mouth

Storage Precautionary Statement(s)
Not allocated

Disposal Precautionary Statement(s)
P501 Dispose of contents/container in accordance with local, regional, national and international regulations

Poisons Schedule (Aust): S5

DANGEROUS GOODS CLASSIFICATION
Not classified as Dangerous Goods by the criteria of the “Australian Code for the Transport of Dangerous Goods by Road & Rail” and the “New Zealand NZS5433: Transport of Dangerous Goods on Land”.

3. COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>CHEMICAL ENTITY</th>
<th>CAS NO.</th>
<th>PROPORTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>107-21-1</td>
<td>40-50%</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td>111-46-6</td>
<td>1-2.5%</td>
</tr>
<tr>
<td>Ingredients determined to be non-hazardous</td>
<td>-</td>
<td>Balance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation**: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Skin contact**: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

**Eye contact**: If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion**: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.
PPE for First Aiders: Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Hazchem Code: Not applicable.

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Combustible material.

Fire fighting further advice: On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS
Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS
Clear area of all unprotected personnel. Prevent further leakage or spillage if safe to do so. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.


7. HANDLING AND STORAGE

Handling: Avoid eye contact and repeated or prolonged skin contact.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

National occupational exposure limits:
No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.
However for:

<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
<th>CARCINOGEN CATEGORY</th>
<th>NOTICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>20</td>
<td>52</td>
<td>40</td>
<td>104</td>
<td></td>
<td>Sk</td>
</tr>
</tbody>
</table>

As published by the Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15-minute period, which should not be exceeded at any time during a normal eight-hour workday.

‘Sk’ Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the “National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)” the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:**
OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation of exists, wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**Hygiene measures:** Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Ensure that eyewash stations and safety showers are close to the workstation location.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form / Colour / Odour:** Light yellow liquid with mild odour

**Solubility:** Miscible with water

**Specific Gravity (20 °C):** N Av

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**Product name:** Zerex G05 Coolant - Pre-Mix  
**Substance Key:** VAL019401  
**Issued:** 8 August 2013  
**Version:** 1.2  
**Page:** 4 of 8
Relative Vapour Density (air=1): >1
Vapour Pressure (20 °C): N Av
Flash Point (°C): >121
Flammability Limits (%): N App
Autoignition Temperature (°C): N Av
Melting Point/Range (°C): N Av
Boiling Point/Range (°C): 166
pH: Approx 6.5
Viscosity: N Av
Total VOC (g/Litre): N Av

(Typical values only - consult specification sheet)

N Av = Not available          N App = Not applicable

10. STABILITY AND REACTIVITY

Reactivity: No reactivity hazards are known for the material.

Chemical stability: This material is thermally stable when stored and used as directed.

Hazardous reactions: No known hazardous reactions.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Oxidising agents.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation.

Ingestion: Harmful by ingestion. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

Eye contact: May be an eye irritant.

Acute toxicity

Inhalation: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

Skin contact: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg
Ingestion: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): 300 - 2,000 mg/Kg

Corrosion/Irritancy: Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as not corrosive or irritating to skin.

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a respiratory sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as a Category 2 Hazard. Oral exposure may result in harm to the kidney.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L

Long-term aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see “Section 8. Exposure Controls and Personal Protection” of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.
14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT
Not classified as Dangerous Goods by the criteria of the “Australian Code for the Transport of Dangerous Goods by Road & Rail” and the “New Zealand NZS5433: Transport of Dangerous Goods on Land”.

MARINE TRANSPORT
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

This material is not subject to the following international agreements:

- Montreal Protocol (Ozone depleting substances)
- The Stockholm Convention (Persistent Organic Pollutants)
- The Rotterdam Convention (Prior Informed Consent)
- Basel Convention (Hazardous Waste)

This material is subject to the following international agreements:

- International Convention for the Prevention of Pollution from Ships (MARPOL)
  - Annex III - Harmful Substances carried in Packaged Form

This material/constituent(s) is covered by the following requirements:

- The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth).
- All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

HSNO Approval Number and/or Group Standard:

- Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard 2006 (HSR002606)

16. OTHER INFORMATION

Literary reference

This SDS has been prepared by Chemical Data Services Pty Ltd (www.chemdata.com.au) on behalf of its client.

Reason(s) For Issue: Amend Synonyms

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.
This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Valvoline (Australia) Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.