1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: LOCTITE 290 WICKING GRADE THREADLOCKER KNOWN AS LOCTITE 290 10ML AU

Synonym(s):
- NSN: 8030-99-224-8995 (A) • NSN: 8040-66-150-1307
- 1175229, 1225613, 1496855 - PRODUCT CODE(S)
- 19376(10ML) - PART NUMBER • 290 LOCTITE THREADLOCKER • 29020(10ML) - PART NUMBER • 29050(50 ML) - PART NUMBER • 29070(250 ML) - PART NUMBER • LOCTITE 290 SUPER WICK-IN (FORMERLY) • LOCTITE 290 THREADLOCKER • LOCTITE 290 WICK IN MEDIUM STRENGTH THREADLOCKER (FORMERLY) • LOCTITE AUTOMOTIVE AFTER LOCK • SUPER QICK IN 290 LOCTITE

1.2 Uses and uses advised against

Use(s):
- ANAEROBIC SEALANT • LOCK AND SEAL THREADED FASTENERS • LOCK AND SEAL THREADED SEALANT • THREAD SEALANT

1.3 Details of the supplier of the safety data sheet

Supplier name: HENKEL AUSTRALIA PTY LTD

Address: 135 - 141 Canterbury Road, Kilsyth, Victoria, Australia, 3137

Telephone: (03) 9724 6444

Fax: (03) 9728 5877

Email: msds@au.henkel.com

Website: http://www.loctite.com.au

1.4 Emergency telephone number(s)

Emergency: 1800 032 379; (03) 9724 6556

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS Classification(s):
- Serious Eye Damage / Eye Irritation: Category 2A
- Specific Target Organ Systemic Toxicity (Single Exposure): Category 3
- Aquatic Toxicity (Chronic): Category 3

2.2 Label elements

Signal word: WARNING

Pictograms:

Hazard statement(s):
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.
- H412: Harmful to aquatic life with long lasting effects.

Prevention statement(s):
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264: Wash thoroughly after handling.
- P271: Use only outdoors or in a well-ventilated area.
- P273: Avoid release to the environment. This statement does not apply where this is the intended use.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response statement(s):
- P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312: Call a POISON CENTER or doctor/physician if you feel unwell.
- P337 + P313: If eye irritation persists: Get medical advice/attention.
CHEMALERT REPORT
Full Report

Product name: LOCTITE 290 WICKING GRADE THREADLOCKER KNOWN AS LOCTITE 290 10ML AU

Storage statement(s):
P403 + P233
Store in a well-ventilated place. Keep container tightly closed (applies if the substance is volatile so as to generate a hazardous atmosphere).
P405
Store locked up.

Disposal statement(s):
P501
Dispose of contents/container in accordance with relevant regulations.

2.3 Other Hazards
No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS number</th>
<th>EC number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUMENE HYDROPEROXIDE</td>
<td>80-15-9</td>
<td>201-254-7</td>
<td>1-3%</td>
</tr>
<tr>
<td>NON HAZARDOUS INGREDIENTS</td>
<td>Not Available</td>
<td>Not Available</td>
<td>&gt;60%</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL (PROPANE-1,2-DIOL)</td>
<td>57-55-6</td>
<td>200-338-0</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye
If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation
If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

Skin
If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion
For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

First aid facilities
Eye wash facilities should be available.

4.2 Most important symptoms and effects, both acute and delayed
No information provided.

4.3 Immediate medical attention and special treatment needed
Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture
Combustible. May evolve carbon oxides and hydrocarbons when heated to decomposition. May evolve nitrogen oxides and sulphur oxides when heated to decomposition.

5.3 Advice for firefighters
Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code
None allocated

6. ACCIDENTAL RELEASE MEASURES

This report was compiled based on the SDS dated 09 Feb 2015
Reviewed: 23 Feb 2015
Printed: 11 Mar 2015
Product name: LOCTITE 290 WICKING GRADE THREADLOCKER KNOWN AS LOCTITE 290 10ML AU

6.1 Personal precautions, protective equipment and emergency procedures
Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Only trained personnel should undertake clean up.

6.4 Reference to other sections
See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate ventilation and fire protection systems. Store as a Class C1 Combustible Liquid (AS1940). Store between 8°C and 21°C.

7.3 Specific end use(s)
No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>Reference</th>
<th>TWA</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
<tr>
<td>Propane-1,2-diol (particulates only)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
</tr>
<tr>
<td>Propane-1,2-diol (total vapour &amp; particulates)</td>
<td>SWA (AUS)</td>
<td>150</td>
<td>474</td>
</tr>
</tbody>
</table>

Biological limits
No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering Controls
Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended.

PPE

- **Eye/ face**: Wear splash-proof goggles.
- **Hand**: Wear butyl or nitrile gloves.
- **Body**: When using large quantities or where heavy contamination is likely, wear a PVC apron.
- **Respiratory**: No PPE specified.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- **Appearance**: GREEN LIQUID
- **Odour**: SLIGHT ODOUR
Product name: LOCTITE 290 WICKING GRADE THREADLOCKER KNOWN AS LOCTITE 290 10ML AU

Odour Threshold: NOT AVAILABLE
pH: NOT AVAILABLE
Melting Point: NOT AVAILABLE
Boiling Point: > 150°C
Flash Point: > 93.3°C (cc)
Evaporation Rate: NOT AVAILABLE
Flammability: CLASS C1 COMBUSTIBLE
Upper Explosion Limit: NOT AVAILABLE
Lower Explosion Limit: NOT AVAILABLE
Vapour Pressure: < 5 mm Hg @ 27°C
Vapour Density: NOT AVAILABLE
Solubility (water): SLIGHTLY SOLUBLE
Partition Coefficient: NOT AVAILABLE
Autoignition Temperature: NOT AVAILABLE
Decomposition Temperature: NOT AVAILABLE
Viscosity: NOT AVAILABLE
Explosive Properties: NOT AVAILABLE
Oxidising Properties: NOT AVAILABLE
Specific Gravity: 1.07

9.2 Other information
% Volatiles: NOT AVAILABLE

10. STABILITY AND REACTIVITY

10.1 Reactivity
Carefully review all information in sections 10.2 to 10.6.

10.2 Chemical stability
Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions
May polymerise with violent rupture/explosion.

10.4 Conditions to avoid
Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials
May polymerise in contact with oxidising agents (e.g. nitrates), acids (e.g. nitric acid), amines, UV light, alkalis (e.g. sodium hydroxide), or if heated. Polymerisation may generate heat with potential for fire-explosion. Incompatible with reducing agents (e.g. sulphites).

10.6 Hazardous decomposition products
May evolve carbon oxides and hydrocarbons when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Health hazard summary: Harmful - irritant. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. May cause sensitisation by skin contact. Due to the small product size, the potential for adverse health effects may be reduced.

Eye: Irritant. Contact may result in irritation, lacrimation, pain and redness. May result in burns with prolonged contact.
**Product name**: LOCTITE 290 WICKING GRADE THREADLOCKER KNOWN AS LOCTITE 290 10ML AU

**Inhalation**: Irritant. Over exposure may result in mucous membrane irritation of the respiratory tract, coughing, weakness, nausea, vomiting and headache. High level exposure may result in dizziness, drowsiness, respiratory tract inflammation and breathing difficulties.

**Skin**: Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis. May be absorbed through skin with harmful effects. May cause sensitisation by skin contact.

**Ingestion**: Harmful. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, dizziness and drowsiness. Aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema.

**Toxicity data**

**CUMENE HYDROPEROXIDE (80-15-9)**
- LC50 (Inhalation): 200 ppm/4 hours (mouse)
- LD50 (Ingestion): 382 mg/kg (rat)
- LD50 (Intraperitoneal): 95 mg/kg (rat)
- LD50 (Skin): 500 mg/kg (rat)
- LD50 (Subcutaneous): 392 mg/kg (rat)
- LDLo (Ingestion): 5000 mg/kg (mouse)
- LDLo (Skin): 1200 mg/kg (rabbit)

**PROPYLENE GLYCOL (PROPANE-1,2-DIOL) (57-55-6)**
- LD50 (Ingestion): > 2080 mg/kg (quail)
- LD50 (Intraperitoneal): 6660 mg/kg
- LD50 (Intravenous): 2600 mg/kg (dog)
- LD50 (Skin): 20800 mg/kg (rabbit)
- LD50 (Subcutaneous): 17370 mg/kg (mouse)
- LDLo (Intramuscular): 6300 mg/kg (rabbit)
- LDLo (Subcutaneous): 15500 mg/kg (guinea pig)
- TDLo (Ingestion): 79 g/kg/56 weeks intermittently (child)

**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**12.2 Persistence and degradability**
The major components of this product are expected to be readily biodegradable.

**12.3 Bioaccumulative potential**
No information provided.

**12.4 Mobility in soil**
No information provided.

**12.5 Results of PBT and vPvB assessment**
No information provided.

**12.6 Other adverse effects**
No information provided.

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

- **Waste disposal**: For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information if disposing of large quantities (if required). Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.

- **Legislation**: Dispose of in accordance with relevant local legislation.

**14. TRANSPORT INFORMATION**

**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA**

<table>
<thead>
<tr>
<th></th>
<th>Land Transport (ADG)</th>
<th>Sea Transport (IMDG/IMO)</th>
<th>Air Transport (IATA/ICAO)</th>
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</thead>
<tbody>
<tr>
<td><strong>14.1 UN number</strong></td>
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<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td><strong>14.2 UN proper shipping name</strong></td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
</tbody>
</table>
Product name: LOCTITE 290 WICKING GRADE THREADLOCKER KNOWN AS LOCTITE 290 10ML AU

14.3 Transport hazard classes

<table>
<thead>
<tr>
<th>DG Class</th>
<th>None Allocated</th>
<th>None Allocated</th>
<th>None Allocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary risk(s)</td>
<td>None Allocated</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
</tbody>
</table>

14.4 Packing group

None Allocated

14.5 Environmental hazards

None Allocated

14.6 Special precautions for user

Hazchem Code: None Allocated

15. REGULATORY INFORMATION

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

Poison schedule: A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications:
N - Dangerous for the environment
Xi - Irritant

Risk phrases:
R36/37: Irritating to eyes and respiratory system.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28: After contact with skin, wash immediately with plenty of water.
S37/39: Wear suitable gloves and eye/face protection.
S46: If swallowed, contact a doctor or Poisons Information Centre immediately and show container or label.

Inventory listing(s):
AUSTRALIA: AICS (Australian Inventory of Chemical Substances)
All components are listed on AICS, or are exempt.

15.2 Chemical safety assessment

No information provided.

16. OTHER INFORMATION

Additional information:
WORKPLACE CONTROLS AND PRACTICES: Unless a less toxic chemical can be substituted for a hazardous substance, ENGINEERING CONTROLS are the most effective way of reducing exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Isolating operations can also reduce exposure. Using respirators or protective equipment is less effective than the controls mentioned above, but is sometimes necessary.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, protective equipment and the availability of engineering controls should be considered before final selection of personal protective equipment is made.
Product name
LOCTITE 290 WICKING GRADE THREADLOCKER KNOWN AS LOCTITE 290 10ML AU

COLOUR RATING SYSTEM: RMT has assigned all ChemAlert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all ChemAlert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

Abbreviations
ACGIH American Conference of Governmental Industrial Hygienists
CAS # Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS Central Nervous System
EC No. EC No - European Community Number
EMS Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS Globally Harmonized System
GTEPG Group Text Emergency Procedure Guide
IARC International Agency for Research on Cancer
LC50 Lethal Concentration, 50% / Median Lethal Concentration
LD50 Lethal Dose, 50% / Median Lethal Dose
mg/m³ Milligrams per Cubic Metre
OEL Occupational Exposure Limit
PEL Permissible Exposure Limit
pH relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm Parts Per Million
REACH Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL Short-Term Exposure Limit
STOT-RE Specific target organ toxicity (repeated exposure)
STOT-SE Specific target organ toxicity (single exposure)
SUSMP Standard for the Uniform Scheduling of Medicines and Poisons
SWA Safe Work Australia
TLV Threshold Limit Value
TWA Time Weighted Average

Report Status
This ChemAlert report has been independently compiled by RMT’s scientific department utilising the original Safety Data Sheet ("SDS") for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.

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Product name: LOCTITE 290 WICKING GRADE THREADLOCKER KNOWN AS LOCTITE 290 10ML AU

Last Reviewed: 23 Feb 2015
Date Printed: 11 Mar 2015
Based on SDS dated: 09 Feb 2015

End of Report