MATERIAL SAFETY DATA SHEET

WP-051

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards	MSDS Revision: 2.0	MSDS Revision Date: 06/01/2007

1. PRODUCT IDENTIFICATION

1.1	Product Name:	**ENGINE CASE SEALANT**
1.2	Chemical Name:	NA
1.3	Synonyms:	P/N 043 010 00, P/N 043 010 00 LOC
1.4	Trade Names:	High Temperature Thread Sealant
1.5	Product Use:	NA
1.6	Manufacturer's Name:	Loctite Ireland, Pty
1.7	Manufacturer's Address:	Tellaght Business Park, whitestown, Dublin, Ireland
1.8	Business Phone:	+1(353) 1 404-6444
1.9	Emergency Phone:	**CHEMTREC +1 (800) 424-9300/+1 (703) 527-3887**

CHEMICAL RESPONSE CARD:	**92**
RESPONSE TEAM PPE:	
WHMIS:	
HEALTH:	**2**
FLAMMABILITY:	**1**
REACTIVITY:	**0**
PERSONAL PROTECTION:	**B**

2. HAZARD IDENTIFICATION

2.1 Hazard Identification:
This product is classified as a hazardous substance but not as dangerous goods according to the classification criteria of NOHSC and ADG Code (Australia). May cause moderate skin irritation. Causes severe eye irritation.

2.2 Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES

2.3 Effects of Exposure:
EYES: Mild irritation.
SKIN: May cause irritation to sensitive skin.
INGESTION: May cause irritation, nausea, vomiting, diarrhea.
INHALATION: Respiratory irritation.

2.4 Symptoms of Exposure:
EYES: Mild irritation.
SKIN: May cause irritation to sensitive skin.
INGESTION: May cause irritation, nausea, vomiting, diarrhea.
INHALATION: Respiratory irritation.

2.5 Acute Health Effects:
EYES: Mild irritation.
SKIN: May cause irritation to sensitive skin.
INGESTION: May cause irritation, nausea, vomiting, diarrhea.
INHALATION: Respiratory irritation.

2.6 Chronic Health Effects:
The manufacturer has not reported any chronic health effects.

2.7 Target Organs:
None reported by the manufacturer.

See Section 16 for Additional Definitions of Terms Used.
NOTE: All WHMIS required information is included – it is located in appropriate sections based on the ANSI Z400.1-2004 format.

3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m³) ACGIH - ppm TLV	ACGIH - ppm STEL	OSHA - ppm PEL	OSHA - ppm STEL	OSHA - ppm IDLH	OTHER
CUMENE HYDROPEROXIDE	80-15-9	MX2450000	201-254-7	≤ 5.0	NA	NA	NA	NA	NA	

4. FIRST AID MEASURES

4.1 First Aid:

EYES: Flush eyes thoroughly with copious amounts of water for at least 20 minutes, holding eyelids open to ensure complete flushing. Seek immediate medical attention.

SKIN: Remove contaminated clothing and flush affected areas with water. Seek prompt medical attention. Launder clothing before reuse.

INGESTION: Do not induce vomiting. Call a physician or poison control center for assistance and instructions. Seek immediate medical attention. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.

INHALATION: Remove victim to fresh air at once. If breathing is difficult, provide supplemental oxygen. If breathing has stopped, provide artificial respiration. Seek immediate medical attention. Provide supportive treatment, keeping victim warm and quiet.

4.2 Medical Conditions Aggravated by Exposure:

Pre-existing skin disorders.

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0
PROTECTIVE EQUIPMENT	B

EYES | SKIN

5. FIREFIGHTING MEASURES

5.1 Flashpoint & Method:

> 100 °C (200 °F), TCC

5.2 Autoignition Temperature:

NA

5.3 Flammability Limits: Lower Explosive Limit (LEL): **1.0** Upper Explosive Limit (UEL): **8.0**

5.4 Fire & Explosion Hazards:

NA

5.5 Extinguishing Methods:

Carbon Dioxide, foam, dry chemical, water, water fog.

5.6 Firefighting Procedures:

Keep containers cool until well after the fire is out. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters should wear full-face, self-contained breathing apparatus (MSHA/NIOSH approved or the equivalent) and impervious clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1	Spills: **Secure spill area, remove or minimize all sources of ignition, and maximize ventilation. Stop spill or leak at source if safely possible. Deny entry to all unprotected individuals. Individuals involved in the cleanup must wear appropriate personal protective equipment. Recover free liquid or cover with inert absorbent material and place into appropriate container(s) for disposal. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers or any natural waterway or drinking supply. Contact appropriate local and/or provincial authorities for assistance and/or reporting requirements.**

7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices: **Keep hands away from eyes when handling material or before washing after use. Wash thoroughly after using – particularly before eating and smoking. If this product is sanded or machined after curing, take appropriate precautions against inhalation of nuisance particulates.**
7.2	Storage & Handling: **Handle cautiously; avoid contact with skin and eyes. Storage and handling areas should be equipped with proper containment to capture and neutralize spills.**
7.3	Special Precautions: **Storage and use areas should be equipped with eyewash stations and safety showers.**

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Ventilation & Engineering Controls: **General mechanical is satisfactory. If odor is disagreeable, use local exhaust.**
8.2	Respiratory Protection: **None required under normal conditions. A respiratory protection program that meets ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirators use.**
8.3	Eye Protection: **Safety glasses with side shields should be used with this product. If splashing is anticipated, splash goggles and a faceshield are recommended.**
8.4	Hand Protection: **Wear protective clothing to prevent skin contact. Aprons and gloves should be constructed of: impermeable material. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment.**
8.5	Body Protection: **Wear protective clothing to prevent skin contact. Aprons and gloves should be constructed of: impermeable material. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment.**

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Density:	**1.08**
9.2	Boiling Point:	**> 150 °C (> 300 °F)**
9.3	Melting Point:	**ND**
9.4	Evaporation Rate:	**ND**
9.5	Vapor Pressure:	**≤ 0.5 mm Hg @ 20 °C**
9.6	Molecular Weight:	**ND**
9.7	Appearance & Color:	**Green Paste**
9.8	Odor Threshold:	**Characteristic Odor**
9.9	Solubility:	**Insoluble**
9.10	pH	**NA**
9.11	Viscosity:	**ND**
9.12	Other Information:	**NA**

10. STABILITY & REACTIVITY

10.1	Stability: **Stable.**
10.2	Hazardous Decomposition Products: **Irritating vapors. Oxides of carbon.**
10.3	Hazardous Polymerization: **Will not occur.**
10.4	Conditions to Avoid: **Exposure to open flame or excessive heat.**
10.5	Incompatible Substances: **Strong oxidizing agents, acids, strong mineral and organic bases.**

11. TOXICOLOGICAL INFORMATION

11.1	Toxicity Data: **See section 2.1**	
11.2	Acute Toxicity: **See section 2.5**	
11.3	Chronic Toxicity: **See section 2.6**	
11.4	Suspected Carcinogen: **No**	
11.5	Reproductive Toxicity:	
	Mutagenicity:	**This product is not expected to cause mutagenic effects in humans.**
	Embryotoxicity:	**This product is not expected to cause embryotoxic effects in humans.**
	Teratogenicity:	**This product is not expected to cause teratogenic effects in humans.**
	Reproductive Toxicity:	**This product is not expected to cause reproductive harm in humans.**
11.6	Irritancy of Product: **NA**	
11.7	Biological Exposure Indices: **NA**	
11.8	Physician Recommendations: **Treat symptomatically.**	

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability: **The manufacturer has not reported any detailed studies on the environmental fate of the material. However, prudent practice would dictate the material not be allowed to enter the environment.**
12.2	Effects on Plants & Animals: **The manufacturer has not reported any animal or plant effects**
12.3	Effects on Aquatic Life: **The manufacturer has not reported any aquatic life effects.**

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal: **Dispose of in accordance with federal, state & provincial hazardous waste laws.**
13.2	Special Considerations: **If the material is unsuitable for recycling or reclamation, enclosed-controlled incineration is recommended unless otherwise prohibited by local ordinance.**

14. TRANSPORTATION INFORMATION

The basic description (proper shipping name, hazard class & division, ID Number, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.

14.1	49 CFR (GND): **NOT REGULATED**
14.2	IATA (AIR): **NOT REGULATED**
14.3	IMDG (OCN): **NOT REGULATED**
14.4	TDGR (Canadian GND): **NOT REGULATED**
14.5	ADR/RID (EU): **NOT REGULATED**
14.6	MEXICO (SCT): **NOT REGULATED**

15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements: **This product contains cumene hydroperoxide, a substance subject to SARA reporting requirements.**
15.2	SARA Threshold Planning Quantity: **NA**
15.3	TSCA Inventory Status: **The components of this product are listed on the TSCA inventory.**
15.4	CERCLA Reportable Quantity (RQ): **Cumene Hydroperoxide: 10 lbs**
15.5	Other Federal Requirements: **NA**
15.6	Other Canadian Regulations **All chemical substances of this product are listed on the CEPA DSL/NDSL or are exempt from list requirements. This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.**
15.7	State Regulatory Information: **NA**
15.8	67/548/EEC (European Union) Requirements: **The primary components of this product are NOT listed in Annex I of EU Directive 67/548/EEC.**

16. OTHER INFORMATION

16.1	Other Information: **NA**	
16.2	Terms & Definitions: **Please see last page of this Material Safety Data Sheet.**	
16.3	Disclaimer: This Material Safety Data Sheet complies with U.S. OSHA's Hazard Communication Standard, 29 CFR §1910.1200 & Health Canada's Workplace Hazardous Materials Information System (WHMIS). To the best of ShipMate's or Worldpac's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product. Contact the manufacturer for additional information.	
16.4	Prepared for: **WorldPac, Inc.** **37137 Hickory Street** **Newark, CA 94560** **510-608-5525 phone** **510-742-9262 fax** **http://www.worldpac.com/**	WORLDPAC World Wide Parts and Accessories Corporation
16.5	Prepared by: **Steven Charles Hunt** **ShipMate, Inc.** **18436 Hawthorne Blvd, Suite 201** **Torrance, CA 90504 USA** **Phone: +1 (310) 370-3600** **Fax: +1 (310) 370-5700** **e-mail: shipmate@shipmate.com**	ShipMate Dangerous Goods Training & Consulting

DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these that are commonly used include the following:

GENERAL INFORMATION:

CAS No.	Chemical Abstract Service Number

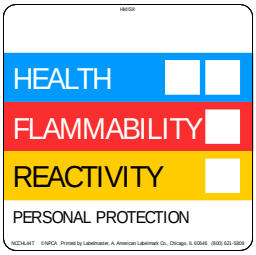
EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
TLV	Threshold Limit Value
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
IDLH	Immediately Dangerous to Life and Health

FIRST AID MEASURES:

CPR	Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

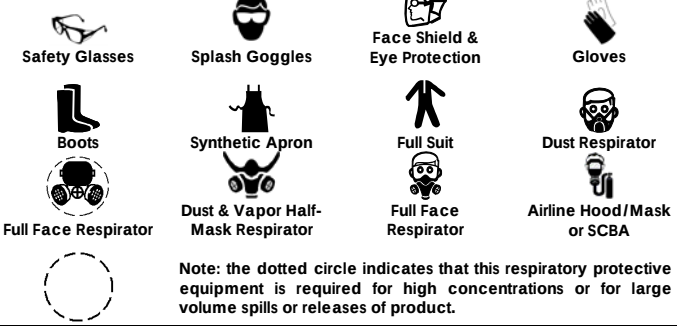


HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard

PERSONAL PROTECTION RATINGS:

A	
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	
X	**Consult your supervisor or S.O.P. for special handling directions.**



Note: the dotted circle indicates that this respiratory protective equipment is required for high concentrations or for large volume spills or releases of product.

OTHER STANDARD ABBREVIATIONS:

NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

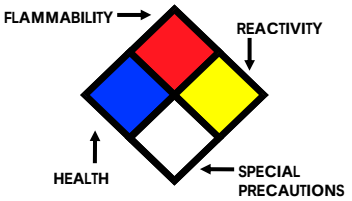
NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

FLAMMABILITY LIMITS IN AIR:

Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source

HAZARD RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard
ACD	Acidic
ALK	Alkaline
COR	Corrosive
~~W~~	Use No Water
OX	Oxidizer



TOXICOLOGICAL INFORMATION:

LD_{50}	Lethal Dose (solids & liquids) which kills 50% of the exposed animals s
LC_{50}	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD_{lo}	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD_{lo}, LD_{lo}, & LD_o or TC, TC_o, LC_{lo}, & LC_o	Lowest dose (or concentration) to cause lethal or toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TL_m	Median threshold limit
log K_{OW} or log K_{OC}	Coefficient of Oil/Water Distribution

REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System
DOT	U.S. Department of Transportation
TC	Transport Canada
EPA	U.S. Environmental Protection Agency
DSL	Canadian Domestic Substance List
NDSL	Canadian Non-Domestic Substance List
PSL	Canadian Priority Substances List
TSCA	U.S. Toxic Substance Control Act
EU	European Union (European Union Directive 67/548/EEC)

EC INFORMATION:

							
C	**E**	**F**	**N**	**O**	**T+**	**Xi**	**Xn**
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful