

## SAFETY DATA SHEET

SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product Identifier

Product Name 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Contains Ethanol

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

Identified uses Lubricant

Uses advised against Consumer use

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

##### Supplier (manufacturer/importer/only representative/downstream user/distributor)

HH Compliance  
Rubicon Centre,  
CIT Campus,  
Bishopstown,  
Cork,  
Ireland  
T12 Y275  
+353-21-4868121

##### Manufacturer

Lubrication Engineers Inc.  
1919 E. Tulsa  
Wichita, KS 67216  
USA  
800-537-7683

##### For further information, please contact

techsupport@le-inc.net

#### 1.4. Emergency telephone number

Emergency Telephone CHEMTREC: +1-703-527-3887 (INTERNATIONAL)  
1-800-424-9300 (NORTH AMERICA)

SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Specific target organ toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

### 2.2. Label Elements



**Signal word**  
**WARNING**

#### Hazard statements

H373 - May cause damage to organs through prolonged or repeated exposure  
H412 - Harmful to aquatic life with long lasting effects

#### Precautionary Statements

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection  
P308 + P313 - IF exposed or concerned: Get medical advice/ attention  
P405 - Store locked up  
P501 - Dispose of contents/ container to an approved waste disposal plant  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P314 - Get medical advice/ attention if you feel unwell  
P273 - Avoid release to the environment

### 2.3. Other Hazards

No information available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Chemical name	EC-No	CAS No.	Weight-%	Classification	Classification (Reg. 1272/2008)	REACH Registration Number
Petroleum distillates, hydrotreated heavy paraffinic	Present	64742-54-7	54	-	No data available	01-2119484627-25-0097
Polyisobutene	-	9003-27-4	28.725	-	No data available	no data available
Coconut Oil	Present	8001-31-8	2.5	-	No data available	no data available
Decanedioic acid,	Present	17265-14-4	2	-	No data available	no data available

SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

sodium salt (1:2)						
Ethanol	Present	64-17-5	1.07143	F; R11	Flam. Liq. 2 (H225)	no data available
Petroleum distillates, hydrotreated middle	Present	64742-46-7	0.5	-	No data available	no data available

The producer of "4051" declares that it contains less than 3% DMSO extractable material by IP-346

**For the full text of the R-phrases mentioned in this Section, see Section 16**

**Full text of H- and EUH-phrases: see section 16**

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>Inhalation</b>	Move to fresh air.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>Ingestion</b>	Drink plenty of water. Do NOT induce vomiting.

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

<b>Symptoms</b>	None known.
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### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
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## Section 5: FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

<b>Suitable Extinguishing Media</b>	Water spray, Carbon dioxide (CO <sub>2</sub> ), Foam, Dry chemical
<b>Unsuitable Extinguishing Media</b>	Do not use a solid water stream as it may scatter and spread fire.
<b>Flash Point</b>	288 °C / 550.4 °F

### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

## Section 6: ACCIDENTAL RELEASE MEASURES

SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

## 6.1. Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Do not touch or walk through spilled material. Remove all sources of ignition.

## 6.2. Environmental precautions

Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

## 6.3. Methods and material for containment and cleaning up

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning up** Use personal protective equipment. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

## 6.4. Reference to other sections

See Section 12 for more information.

## **Section 7: HANDLING AND STORAGE**

### 7.1. Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. For personal protection see section 8.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

**Technical measures/Storage conditions** Keep container tightly closed in a dry and well-ventilated place.

### 7.3. Specific end use(s)

**Risk Management Methods (RMM)** The information required is contained in this Material Safety Data Sheet.

## **Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### 8.1. Control parameters

#### Occupational Exposure limits

Chemical name	New Zealand WEL	Australia	Japan	China	Hong Kong
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7	-	-	C1	-	-
Ethanol 64-17-5	TWA 1000 ppm TWA 1880 mg/m <sup>3</sup>	TWA 1000 ppm TWA 1880 mg/m <sup>3</sup>	-	-	TWA 1000 ppm TWA 1880 mg/m <sup>3</sup>
Butylated Hydroxy Toluene 128-37-0	TWA 10 mg/m <sup>3</sup>	TWA 10 mg/m <sup>3</sup>	-	-	-
Silica, quartz 14808-60-7	TWA 0.1 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup>	OEL 0.03 mg/m <sup>3</sup> C1 ISHL:	TWA 0.7 mg/m <sup>3</sup> TWA 0.3 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA 0.5 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup>

SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

				TWA 0.2 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup> STEL 1.4 mg/m <sup>3</sup> STEL 1 mg/m <sup>3</sup> STEL 0.6 mg/m <sup>3</sup> STEL 0.4 mg/m <sup>3</sup> C1	
Isopropyl alcohol 67-63-0	TWA 400 ppm TWA 983 mg/m <sup>3</sup> STEL 500 ppm STEL 1230 mg/m <sup>3</sup>	500 ppm STEL; 1230 mg/m <sup>3</sup> STEL TWA 400 ppm TWA 983 mg/m <sup>3</sup>	Ceiling: 400 ppm Ceiling: 980 mg/m <sup>3</sup> ISHL/ACL: 200 ppm	TWA 350 mg/m <sup>3</sup> STEL 700 mg/m <sup>3</sup>	TWA 400 ppm TWA 983 mg/m <sup>3</sup> STEL 500 ppm STEL 1230 mg/m <sup>3</sup>
<b>Chemical name</b>	Indonesia	Malaysia	Philippines	Singapore	Korea
Ethanol 64-17-5	TWA 1000 ppm	TWA 1000 ppm TWA 1880 mg/m <sup>3</sup>	TWA 1000 ppm TWA 1900 mg/m <sup>3</sup>	PEL: 1000 ppm PEL: 1880 mg/m <sup>3</sup>	TWA 1000 ppm
Butylated Hydroxy Toluene 128-37-0	TWA 10 mg/m <sup>3</sup> C(A4)	TWA 10 mg/m <sup>3</sup>	-	PEL: 10 mg/m <sup>3</sup>	TWA 2 mg/m <sup>3</sup>
Silica, quartz 14808-60-7	TWA 0.1 mg/m <sup>3</sup>	TWA 0.1 mg/m <sup>3</sup>	-	PEL: 0.1 mg/m <sup>3</sup>	TWA 0.05 mg/m <sup>3</sup>
Isopropyl alcohol 67-63-0	TWA 400 ppm TWA 983 mg/m <sup>3</sup> STEL 500 ppm STEL 1230 mg/m <sup>3</sup>	TWA 400 ppm TWA 983 mg/m <sup>3</sup>	TWA 400 ppm TWA 980 mg/m <sup>3</sup>	STEL: 500 ppm STEL: 1230 mg/m <sup>3</sup> PEL: 400 ppm PEL: 983 mg/m <sup>3</sup>	STEL 400 ppm TWA 200 ppm
<b>Chemical name</b>	Taiwan	Thailand	Brazil	Chile	
Ethanol 64-17-5	STEL 1000 ppm STEL 1880 mg/m <sup>3</sup>	-	TWA: 780 ppm TWA: 1480 mg/m <sup>3</sup>	TWA: 875 ppm TWA: 1645 mg/m <sup>3</sup>	
Silica, quartz 14808-60-7	-	TWA	-	TWA: 0.08 mg/m <sup>3</sup>	
Isopropyl alcohol 67-63-0	STEL 500 ppm STEL 1228.75 mg/m <sup>3</sup>	-	TWA: 310 ppm TWA: 765 mg/m <sup>3</sup> Skin	TWA: 350 ppm TWA: 858 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1230 mg/m <sup>3</sup>	

**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available.

## 8.2. Exposure controls

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

<b>Eye/Face Protection</b>	Tightly fitting safety goggles.
<b>Hand Protection</b>	Rubber/latex/neoprene or other suitable chemical resistant gloves.
<b>Skin and Body Protection</b>	Long sleeved clothing.
<b>Respiratory Protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Environmental Exposure Controls** No information available.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Physical state</b>	Paste
<b>appearance</b>	beige
<b>Odor</b>	Hydrocarbon-like
<b>Odor threshold</b>	No information available

SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

<u>Property</u>	<u>Values</u>
pH	6 - 8
Melting Point / Freezing Point	No data available
Boiling point / boiling range	No data available
Flash Point	288 °C / 550.4 °F
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Vapor pressure	No data available
Vapor Density	< 1 ( Air = 1 )
Specific Gravity	0.95
Water solubility	negligible
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity, kinematic	not applicable
Explosive properties	No data available
Oxidizing Properties	No data available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None known.

### 10.2. Chemical stability

Stable under normal conditions.

#### Explosion Data

**Sensitivity to Mechanical Impact** Not impact sensitive.

**Sensitivity to Static Discharge** May be ignited by friction, heat, sparks or flames.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions** None under normal processing.

### 10.4. Conditions to avoid

Heat, flames and sparks. Contact with other chemicals.

### 10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### **Acute Toxicity**

SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

## Product Information

Product does not present an acute toxicity hazard based on known or supplied information.

The producer of "4051" declares that it contains less than 3% DMSO extractable material by IP-346

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye Contact</b>	Contact with eyes may cause irritation.
<b>Skin Contact</b>	May cause irritation.
<b>Ingestion</b>	There is no data available for this product.

**Unknown Acute Toxicity** 97.6789305% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	14,086.50 mg/kg
<b>ATEmix (dermal)</b>	6,258.90 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	394.80 mg/l

## Component Information

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Petroleum distillates, hydrotreated heavy paraffinic	> 15 g/kg ( Rat )	> 5000 mg/kg ( Rabbit )	-
Coconut Oil	> 5000 mg/kg ( Rat )	-	-
Ethanol	= 7060 mg/kg ( Rat )	-	= 124.7 mg/L ( Rat ) 4 h
Petroleum distillates, hydrotreated middle	= 7400 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	= 4.6 mg/L ( Rat ) 4 h
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	> 5000 mg/kg ( Rat )	-	-
Butylated Hydroxy Toluene	> 2930 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
Water	> 90 mL/kg ( Rat )	-	-
Isopropyl alcohol	= 1870 mg/kg ( Rat )	= 4059 mg/kg ( Rabbit )	= 72600 mg/m <sup>3</sup> ( Rat ) 4 h
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, salts with bentonite	> 5000 mg/kg ( Rat )	-	> 12.6 mg/L ( Rat ) 4 h

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Carcinogenic Effects** No information available

Chemical name	IARC
Ethanol	-
Silica, quartz	-
Isopropyl alcohol	-

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure.

**Target Organ Effects** Blood, Central nervous system (CNS), Respiratory system, Eyes, Liver, Skin, Reproductive

SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

system.

**Aspiration Hazard**

No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity**

Harmful to aquatic life with long lasting effects

Chemical name	Algae/aquatic plants	Toxicity to Fish	Toxicity to daphnia and other aquatic invertebrates
Petroleum distillates, hydrotreated heavy paraffinic	-	-	-
Ethanol	-	LC50 12.0 - 16.0 mL/L Oncorhynchus mykiss 96 h LC50 > 100 mg/L Pimephales promelas 96 h LC50 13400 - 15100 mg/L Pimephales promelas 96 h	EC50 = 10800 mg/L 24 h LC50 9268 - 14221 mg/L 48 h EC50 = 2 mg/L 48 h
Petroleum distillates, hydrotreated middle	-	-	-
Butylated Hydroxy Toluene	EC50 = 6 mg/L 72 h EC50 > 0.42 mg/L 72 h	-	-
Isopropyl alcohol	-	-	-

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

Chemical name	Log Pow
Ethanol	-0.32
Butylated Hydroxy Toluene	4.17
Isopropyl alcohol	0.05

### 12.4. Mobility in soil

**Mobility in soil**

No information available.

**Mobility**

The product is insoluble and floats on water.

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

No information available



SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste from Residues/Unused Products** Dispose of in accordance with local regulations.

**Contaminated Packaging** Do not re-use empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14: TRANSPORT INFORMATION

**IMDG** Not regulated

**ADR/RID** Not regulated

**ICAO/IATA** Not regulated

## Section 15: REGULATORY INFORMATION

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

#### International Inventories

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Not determined
<b>ENCS</b>	Not determined
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

#### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

#### Japan

Chemical name	Dangerous Substances	Organic solvents	Harmful Substances Whose Names Are to be Indicated on the	Pollution Release and Transfer Registry (Class II):	Pollution Release and Transfer Registry (Class I):	Poisonous and Deleterious Substances Control Law

SDS: 4051

# 4051 H1 QUINPLEX® HIGH TEMPERATURE LUBRICANT

Issuing Date 05-02-2017

Revision Date 03-31-2020

Revision Number 5

			Label			
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7	>=0.1 %	-	X	-	-	-
Ethanol 64-17-5	Flammable substance >=0.1 %	-	X	-	-	-
Butylated Hydroxy Toluene 128-37-0	>=0.1 %	-	X	-	207	-
Silica, quartz 14808-60-7	>=0.1 %	-	X	-	-	-
Isopropyl alcohol 67-63-0	Flammable substance >=0.1 %	Class 2 Organic Solvent	X	-	-	-

## Section 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

Issuing Date 05-02-2017

Revision Date 03-31-2020

Reason for revision Formulation.

### Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SDS is available at [www.LElubricants.com](http://www.LElubricants.com)

End of Safety Data Sheet