

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

#### 1.1. Product identifier

Product form : Mixture  
 Product name : LUB009100 - Rymax Dione G-12+ Ready to Use  
 Product code : LUB009100

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

##### 1.2.1. Relevant identified uses

Intended for general public  
 Main use category : Industrial use, Professional use, Consumer use  
 Use of the substance/mixture : Anti-freezing agents

##### 1.2.2. Uses advised against

No additional information available

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

Rymax Lubricants B.V.  
 Delweg, 8  
 NL- 6902 PJ Zevenaar – Netherlands  
 Netherlands  
 T tel: +31 (0) 316 740 856  
[info@rymax-lubricants.com](mailto:info@rymax-lubricants.com) - [www.rymax-lubricants.com](http://www.rymax-lubricants.com)

#### 1.4. Emergency telephone number

Emergency number : +31 (0) 316 740 856

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

### 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  
 Serious eye damage/eye irritation, Category 2 H319  
 Specific target organ toxicity – Repeated exposure, Category 2 H373  
 Full text of H- and EUH-statements: see section 16

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

May cause damage to organs (kidneys) through prolonged or repeated exposure (oral). Harmful if swallowed. Causes serious eye irritation.

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



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

	GHS07	GHS08
Signal word (CLP)	: Warning	
Contains	: ethanediol; ethylene glycol	
Hazard statements (CLP)	: H302 - Harmful if swallowed. H319 - Causes serious eye irritation. H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (if swallowed).	
Precautionary statements (CLP)	: P260 - Do not breathe dust, fume, gas, mist, spray, vapours. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P312 - IF SWALLOWED: Call a POISON CENTER, doctor if you feel unwell. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	

### 2.3. Other hazards

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

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanediol; ethylene glycol substance with national workplace exposure limit(s) (AT, BE, DE, DK, ES, FI, FR, GB, NL, SE, NO, CH); substance with a Community workplace exposure limit	CAS-No.: 107-21-1 EC-No.: 203-473-3 EC Index-No.: 603-027-00-1 REACH-no: 01-2119456816-28	$\geq 45$	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Potassium 2-ethylhexanoate	CAS-No.: 3164-85-0 EC-No.: 221-625-7 REACH-no: 01-2119980714-29	$\geq 1 - < 3$	Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361d

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 cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after eye contact	: Eye irritation.
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### 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 water jet since it may cause the fire to spread.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Precautionary measures fire : Do not enter fire area without proper protective equipment, including respiratory protection.  
Firefighting instructions : Use water spray or fog for cooling exposed containers.  
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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe dust, fume, gas, mist, spray, vapours. Avoid contact with skin and eyes.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

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

For containment : Absorb spilled material with sand or earth.  
Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe dust, fume, mist, spray, vapours, gas. Avoid contact with skin and eyes. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep cool.  
Incompatible products : Oxidizing agent. Strong acids.  
Maximum storage period : 5 year  
Storage temperature : ≤ 40 °C  
Storage area : Store at ambient temperature.

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Special rules on packaging : Store in a closed container.

### 7.3. Specific end use(s)

No additional information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

ethanediol; ethylene glycol (107-21-1)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	52 mg/m <sup>3</sup> 8 Hrs
WEL STEL (OEL STEL)	104 mg/m <sup>3</sup> 15 Min

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

##### Personal protective equipment:

Gloves. Safety glasses. Protective clothing.

##### Personal protective equipment symbol(s):



##### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166

##### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

##### Hand protection:

Protective gloves

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Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.4		EN ISO 374
Disposable gloves	Butyl rubber	6 (> 480 minutes)	0.7		EN ISO 374

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: pink.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: ≤ -15 °C
Freezing point	: Not available
Boiling point	: > 100 °C
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 111 °C (ASTM D93)
Auto-ignition temperature	: > 390 °C
Decomposition temperature	: Not available
pH	: 7 – 10
Viscosity, kinematic	: Not available
Solubility	: soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: < -0.1
Vapour pressure	: < 2 hPa
Vapour pressure at 50 °C	: Not available
Density	: 0.79 – 0.8 kg/l
Relative density	: Not available
Relative vapour density at 20 °C	: > 1
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1)	: < 0.1
VOC content	: 0

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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### 10.2. Chemical stability

Stable under normal conditions.

### 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

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

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ATE CLP (oral)	1000 mg/kg bodyweight
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#### ethanediol; ethylene glycol (107-21-1)

LD50 oral (rat)	7712 mg/kg
LD50 dermal	> 3500 mg/kg
LC50 inhalation (rat) (mg/l)	> 2.5 mg/l (6h)

#### Potassium 2-ethylhexanoate (3164-85-0)

LD50 oral (rat)	2043 mg/kg Source: ECHA
LD50 oral	2400 – 2400 mg/kg bodyweight Animal: other., Remarks on results: other:
LD50 dermal (rat)	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation : Not classified  
pH: 7 – 10  
Serious eye damage/irritation : Causes serious eye irritation.  
pH: 7 – 10  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

#### ethanediol; ethylene glycol (107-21-1)

NOAEL (chronic, oral, animal/male, 2 years)	1500 mg/kg bodyweight mouse, male
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Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : May cause damage to organs (kidneys) through prolonged or repeated exposure (if swallowed).

#### ethanediol; ethylene glycol (107-21-1)

NOAEL (subchronic, oral, animal/male, 90 days)	150 mg/kg bodyweight
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

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<b>Potassium 2-ethylhexanoate (3164-85-0)</b>	
NOAEL (subchronic, oral, animal/male, 90 days)	180 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: other:
NOAEL (subchronic, oral, animal/female, 90 days)	205 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: other:

Aspiration hazard : Not classified

<b>ethanediol; ethylene glycol (107-21-1)</b>	
Viscosity, kinematic	14.505 mm <sup>2</sup> /s

### 11.2. Information on other hazards

No additional information available

## 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.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Not rapidly degradable

<b>ethanediol; ethylene glycol (107-21-1)</b>	
LC50 - Fish [1]	72860 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	3536 mg/l Test organisms (species): other:greenn algae
NOEC chronic fish	15380 mg/l Pimephales promelas
NOEC chronic crustacea	8590 mg/l Daphnia magna
Threshold limit - Algae [1]	10000 mg/l 168 Hrs
Threshold limit - Algae [2]	2000 mg/l 192 Hrs

<b>Potassium 2-ethylhexanoate (3164-85-0)</b>	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustacea [1]	910 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	49.3 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	63 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

### 12.2. Persistence and degradability

<b>ethanediol; ethylene glycol (107-21-1)</b>	
Persistence and degradability	Readily biodegradable. easily degradable 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 % ThOD
Biodegradation	90 %

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### 12.3. Bioaccumulative potential

#### LUB009100 - Rymax Dione G-12+ Ready to Use

Partition coefficient n-octanol/water (Log Pow)	< -0.1
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#### ethanediol; ethylene glycol (107-21-1)

Bioconcentration factor (BCF REACH)	10
Partition coefficient n-octanol/water (Log Kow)	-1.36 @ 25°C

### 12.4. Mobility in soil

#### ethanediol; ethylene glycol (107-21-1)

Surface tension	0.048 N/m @ 20°C
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### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods

HP Code

: Dispose of contents/container in accordance with licensed collector's sorting instructions.  
: HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.  
HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

## SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				



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### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### VOC Directive (2004/42)

VOC content : 0

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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### SECTION 16: Other information

#### 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
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
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Full text of H- and EUH-statements:	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

Safety Data Sheet (SDS), EU RYMAX 2023

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.