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

1.1. Product identifier

Product form : Mixture
Product name : Rymax Dione G-12
Product code : lub009100
Product group : Trade product

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
Function or use category : 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 b.v.
Delweg 8
6902 PJ Zevenaar
The Netherlands
info@rymax-lubricants.com
tel: +31 (0) 316-740856

1.4. Emergency telephone number

Emergency number : +31 (0)316 740 856
(Monday to Friday: 8:00 - 17:00)

Country	Organisation/Company	Address	Emergency number
IRELAND (REPUBLIC OF)	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964
UNITED KINGDOM	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Oral)	H302
Eye Irrit. 2	H319
STOT RE 2	H373

Full text of H-statements: see section 16

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07 GHS08

CLP Signal word : Warning
Hazardous ingredients : 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 (oral)
Precautionary statements (CLP) : P260 - Do not breathe mist, spray, vapours
P264 - Wash hands thoroughly after handling
P301+P312 - IF SWALLOWED: Call a 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
P314 - Get medical advice/attention if you feel unwell
P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanediol, ethylene glycol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1 (REACH-no) 01-2119456816-28	>= 50	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Potassium 2-Ethylhexanoate	(CAS No) 3164-85-0 (EC no) 221-625-7	1 - 3	Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361d

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Seek medical attention if ill effect develops.

First-aid measures after inhalation : Take victim to fresh air, in a quiet place, in an half laying position and if necessary take medical advice. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention if ill effect or irritation develops.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Ensure adequate flushing of eyes by separating eyelids with the fingers. Obtain medical attention if pain, blinking, tears or redness persist.

First-aid measures after ingestion : Do not induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Drink plenty of water. If vomiting occurs spontaneously, keep head below the hips to prevent aspiration.

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

Symptoms/injuries after inhalation : At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.

Symptoms/injuries after skin contact : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/injuries after eye contact : Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Symptoms/injuries after ingestion : Bad taste. Damage to kidneys. The main component of this product is harmful by ingestion. Swallowing a small quantity of this material will result in serious health hazard.

Symptoms/injuries upon intravenous administration : Unknown.

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 fog. Carbon dioxide (CO2), dry chemical powder, foam.

Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustion generates : CO, CO2.

Explosion hazard : Not expected to be a fire/explosion hazard under normal conditions of use.

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 : Use self-contained breathing apparatus and chemically protective clothing.

Other information : Prevent fire-fighting water from entering environment. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spill area may be slippery. Prevent soil and water pollution. Prevent entry to sewers and public waters.

6.1.1. For non-emergency personnel

Protective equipment : Use protective clothing.

Emergency procedures : Consider evacuation.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : No specific measures are necessary.

6.2. Environmental precautions

Dike for recovery or absorb with appropriate material. Notify authorities if product enters sewers or public waters. Prevent soil and water pollution. Prevent liquid from entering sewers, watercourses, underground or low areas. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.3. Methods and material for containment and cleaning up

For containment : Large quantities: Contain large spillage with sand or earth.

Methods for cleaning up : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Take up large spills with pump or vacuum and finish with dry chemical absorbent.

Other information : Use suitable disposal containers. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations. On water, recover/skim from surface and pour out in disposal container.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

Precautions for safe handling : Avoid prolonged and repeated contact with skin. May be dangerously slippery if spilled. Where contact with eyes or skin is likely, wear suitable protection. Do not eat, drink or smoke during use. Remove contaminated clothing and shoes.

Hygiene measures : Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Where contact with eyes or skin is likely, wear suitable protection. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep container tightly closed and in well ventilated place.

Storage conditions : Store in original container.

Incompatible products : Reacts vigorously with strong oxidizers and acids.

Maximum storage period : 5 year

Storage temperature : ≤ 40 °C

Prohibitions on mixed storage : Keep away from : oxidizing materials. strong acids.

Storage area : Store at ambient temperature.

Special rules on packaging : Keep container tightly closed and dry.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethanediol, ethylene glycol (107-21-1)		
EU	Local name	Ethylene glycol
EU	IOELV TWA (mg/m³)	52 mg/m³

ethanediol, ethylene glycol (107-21-1)		
EU	IOELV TWA (ppm)	20 ppm
EU	IOELV STEL (mg/m³)	104 mg/m³
EU	IOELV STEL (ppm)	40 ppm
EU	Notes	Skin
Ireland	OEL (8 hours ref) (mg/m³)	52 mg/m³
Ireland	OEL (8 hours ref) (ppm)	20 ppm
Ireland	OEL (15 min ref) (mg/m3)	104 mg/m³
Ireland	OEL (15 min ref) (ppm)	40 ppm
Malta	Local name	Ethyleneglycol
Malta	OEL TWA (mg/m³)	52 mg/m³
Malta	OEL TWA (ppm)	20 ppm
Malta	OEL STEL (mg/m³)	104 mg/m³
Malta	OEL STEL (ppm)	40 ppm
United Kingdom	WEL TWA (mg/m³)	10 mg/m³
United Kingdom	WEL TWA (ppm)	20 ppm
United Kingdom	WEL STEL (mg/m³)	30 mg/m³ (calculated)
United Kingdom	WEL STEL (ppm)	40 ppm

8.2. Exposure controls

Appropriate engineering controls : Large quantities: Contain large spillage with sand or earth.

Personal protective equipment : Gloves. In case of splash hazard: safety glasses. Eye protection should only be necessary where liquid could be splashed or sprayed.

Materials for protective clothing : Neoprene or nitrile rubber gloves. Butyl-rubber protective gloves

Hand protection : In case of repeated or prolonged contact wear gloves. The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream). The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties).

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

Eye protection : Eye protection should only be necessary where liquid could be splashed or sprayed

Skin and body protection : No special clothing/skin protection equipment is recommended under normal conditions of use. Avoid repeated or prolonged skin contact. If repeated skin contact or contamination of clothing is likely, protective clothing should be worn. Equipment should conform to EN 166.

Respiratory protection : Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment. Respiratory protective equipment must be checked to ensure it fits correctly each time it is worn. Provided an air-filtering/air-purifying respirator is suitable, a filter for particulates can be used for mist or fume. Use filter type P or comparable standard. A combination filter for particles and organic gases and vapours (boiling point >65°C) may be required if vapour or abnormal odour is also present due to high product temperature. Use filter type AP or comparable standard.

Environmental exposure controls : See Heading 12. See Heading 6.

Consumer exposure controls : Neoprene or nitrile rubber gloves. Butylrubber protective gloves.

Other information : Do not put the product-soaked rags into the pockets of working clothes. Do not use cloths stained with the product to dry hands. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke during use. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : liquid

Appearance : liquid.

Colour	:	Pink.
Odour	:	odourless.
Odour threshold	:	no data available
pH	:	no data available
pH solution	:	7 - 10
Relative evaporation rate (butylacetate=1)	:	< 0,1
Melting point	:	<= -15 °C
Freezing point	:	no data available
Boiling point	:	> 100 °C
Flash point	:	111 °C
Auto-ignition temperature	:	> 390 °C
Decomposition temperature	:	no data available
Flammability (solid, gas)	:	no data available
Vapour Pressure 20°C	:	< 2 hPa
Relative vapour density at 20 °C	:	> 1 (air=1)
Relative density	:	no data available
Density	:	0,790 - 0,800 kg/l
Solubility	:	Miscible with water.
Log Pow	:	< -0,1
Viscosity, kinematic	:	no data available
Viscosity, dynamic	:	no data available
Explosive properties	:	no data available
Oxidising properties	:	no data available
Explosive limits	:	no data available

9.2. Other information

VOC content	:	0 %
Other properties	:	Gas/vapour heavier than air at 20'C.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

10.4. Conditions to avoid

Moisture. Overheating.

10.5. Incompatible materials

Strong oxidizing agents. strong acids.

10.6. Hazardous decomposition products

CO, CO2.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. (Based on available data, the classification criteria are not met)

ATE CLP (oral)	555,612 mg/kg bodyweight
ethanediol, ethylene glycol (107-21-1)	
LD50 oral rat	4000 mg/kg
LD50 dermal rat	> 3500 ml/kg
LD50 dermal	> 3500 mg/kg
LC50 inhalation rat (mg/l)	> 2,5 mg/l (6h)
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 2,5 mg/l/4h (6h)

Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Causes serious eye irritation.
Respiratory or skin sensitisation	:	Not classified

Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Aspiration hazard	:	Not classified
Other information	:	Toxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the toxicology of similar products. Likely route of exposure: ingestion, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

ethanediol, ethylene glycol (107-21-1)	
LC50 fish 1	41000 mg/l (96h; Oncorhynchus mykiss)
EC50 Daphnia 1	46300 mg/l (48h; Daphnia magna)
EC50 other aquatic organisms 1	6500 (6500 - 13000) mg/l (96h; Pseudokirchneriella Subcapitata)
LC50 fish 2	14 - 18 ml/l (96h; Oncorhynchus mykiss [static])
Threshold limit algae 1	10000 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	2000 mg/l (192 h; Microcystis aeruginosa)

12.2. Persistence and degradability

ethanediol, ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable in water. easily degradable in the soil.
Biochemical oxygen demand (BOD)	0,47 g O_2/g substance
Chemical oxygen demand (COD)	1,24 g O_2/g substance
ThOD	1,29 g O_2/g substance
BOD (% of ThOD)	0,36

12.3. Bioaccumulative potential

Rymax Dione G-12	
Log Pow	< -0,1

ethanediol, ethylene glycol (107-21-1)	
Log Pow	-1,36
Bioaccumulative potential	No bioaccumulation.

12.4. Mobility in soil

ethanediol, ethylene glycol (107-21-1)	
Surface tension	0,048 N/m (20 °C)

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	:	Disposal must be done according to official regulations.
Waste disposal recommendations	:	Dispose in a safe manner in accordance with local/national regulations. Do not discharge into drains or the environment.
Additional information	:	Hazardous waste.
Ecology - waste materials	:	Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly. When not empty dispose of this container at hazardous or special waste collection point.
European List of Waste (LoW) code	:	16 01 14* - antifreeze fluids containing dangerous substances 15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

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

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name	:	Not applicable
Proper Shipping Name (IMDG)	:	Not applicable
Proper Shipping Name (IATA)	:	Not applicable
Proper Shipping Name (ADN)	:	Not applicable
Proper Shipping Name (RID)	:	Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	:	Not applicable

IMDG

Transport hazard class(es) (IMDG)	:	Not applicable

IATA

Transport hazard class(es) (IATA)	:	Not applicable

ADN

Transport hazard class(es) (ADN)	:	Not applicable

RID

Transport hazard class(es) (RID)	:	Not applicable

14.4. Packing group

Packing group (UN)	:	Not applicable
Packing group (IMDG)	:	Not applicable
Packing group (IATA)	:	Not applicable
Packing group (ADN)	:	Not applicable
Packing group (RID)	:	Not applicable

14.5. Environmental hazards

Dangerous for the environment	:	No
Marine pollutant	:	No
Other information	:	No supplementary information available

14.6. Special precautions for user

- Overland transport

no data available

- Transport by sea

no data available

- Air transport

no data available

- Inland waterway transport

Not subject to ADN	:	No

- Rail transport

Carriage prohibited (RID)	:	No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

VOC content : 0 %

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

	Supersedes	Modified	
	Revision date	Modified	
	For mixture	Added	
2.2	Hazard statements (CLP)	Modified	
3	Composition/information on ingredients	Modified	
15.2	Chemical safety assessment	Added	
16	Abbreviations and acronyms	Added	

Abbreviations and acronyms:

CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
LD50	Median lethal dose
ATE	Acute Toxicity Estimate
LOAEL	Lowest Observed Adverse Effect Level
BCF	Bioconcentration factor
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
OECD	Organisation for Economic Co-operation and Development
NOEC	No-Observed Effect Concentration
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
LC50	Median lethal concentration
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
RID	Regulations concerning the International Carriage of Dangerous Goods by Rai
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
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
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

SDS EU (REACH Annex II)

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