Coolant -38°C G11 Ready to Use

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 10-1-2011 Revision date: 22-2-2018 version: 1.6

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

1.1. Product identifier

Product form : Mixture

Product name : Coolant -38°C G11 Ready to Use

Product code : 83000C

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

1.2.1. Relevant identified uses

Main use category : Professional 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

MPM International Oil Company
Cyclotronweg 1
2629 HN Delft - Nederland
T +31 (0)15 2514030 - F +31 (0)15 2514031
info@mpmoil.nl - www.mpmoil.nl

1.4. Emergency telephone number

Emergency number : +31 (0)15 2514030 (08.00 - 17.00 GMT+1)

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

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
Specific target organ toxicity — Repeated exposure, Category 2	H373

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07 GHS08

CLP Signal word : Warning

Hazardous ingredients : 1,2-Ethanediol

Hazard statements (CLP) : H302 - Harmful if swallowed.
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure.

Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash the hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 - Rinse mouth.

P501 - Dispose of contents/container to officially registered waste disposal company.

2.3. Other hazards

No additional information available

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]
1,2-Ethanediol	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index-No.) 603-027-00-1 (REACH-no) 01-2119456816-28	30 - 50	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Sodium benzoate	(CAS-No.) 532-32-1 (EC-No.) 208-534-8	0,5 - 2,5	Eye Irrit. 2, H319
Disodium Tetraborate Pentahydrate; Borax Pentahydrate substance listed as REACH Candidate (Disodium tetraborate, anhydrous)	(CAS-No.) 12179-04-3 (EC-No.) 215-540-4 (EC Index-No.) 005-011-02-9	0,1 - 0,5	Repr. 1B, H360FD

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Disodium Tetraborate Pentahydrate; Borax Pentahydrate	(CAS-No.) 12179-04-3 (EC-No.) 215-540-4 (EC Index-No.) 005-011-02-9	(C >= 6,5) Repr. 1B, H360FD

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation : Take victim to fresh air, in a quiet place and if necessary take medical advice. In case of unconsciousness place in unconscious position and seek medical advice.

After skin contact : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If irritation persists, consult a specialist.

After eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a specialist.

After ingestion : Do NOT induce vomiting. Let water be swallowed in little sips (dilution effect). Get immediate medical advice/attention. If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink.

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

Symptoms/effects : Ethylene glycol is harmful if swallowed. Symptoms may be delayed. Can include nausea, vomiting, cramps, can affect the level of consciousness . Can give damage to kidney.

4.3. Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : powder, alcohol-resistant foam, water spray, carbon dioxide. Sand.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : Heat from a fire could result in drum bursting.

5.3. Advice for firefighters

Protection during firefighting : Self-contained breathing apparatus with an air line.

Other information : Use water spray/stream to protect personnel and to cool endangered containers. Do not allow water used to extinguish fire to enter drains or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Plug the leak, cut off the supply. Do not breathe vapour or spray. Provide adequate ventilation.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and eye/face protection.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and eye/face protection.

6.2. Environmental precautions

Prevent spreading over great surfaces (e.g. by damming or installing oil booms). Do not flush into surface water or sewer system. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Prevent spreading over great surfaces (e.g. by damming or installing oil booms). Extinguish all ignition sources.

Methods for cleaning up : Clean up with absorbent material (for example sand, sawdust, neutral absorbent granule, silica gel).

6.4. Reference to other sections

Information on disposal - see Section 13. Information on personal protective equipment - see Chapter 8. Information on safe handling - see Section 7.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured. Keep away from sources of ignition - No smoking. Avoid all eye and skin contact and do not breathe vapour and mist.

Hygiene measures : When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Store in a well-ventilated place. Keep container tightly closed.

Incompatible products : Strong acid.

Information on mixed storage : Keep in cool, well-ventilated place away from acids.

Storage area : Keep container tightly closed in a cool, well-ventilated place. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1,2-Ethanediol (107-21-1)		
EU	Local name	Ethylene glycol
EU	IOELV TWA (mg/m³)	52 mg/m³
EU	IOELV TWA (ppm)	20 ppm
EU	IOELV STEL (mg/m³)	104 mg/m³
EU	IOELV STEL (ppm)	40 ppm
EU	Notes	Skin
Disodium Tetraborate Pentahydrate; Borax Pentahydrate (12179-04-3)		
EU	IOELV TWA (mg/m³)	1 mg/m³

8.2. Exposure controls

Technical measures:

Ensure adequate ventilation of the storage area. Provide adequate ventilation.

Materials for protective clothing:

Suitable material: NR (Natural rubber (caoutchouc), Natural latex). neoprene. nitrile rubber. PVC (Polyvinyl chloride).

Hand protection:

Wear suitable gloves resistant to chemical penetration. In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Eye protection:

No special eye protection equipment recommended under normal conditions of use. Eye protection should only be necessary where hot liquid could be splashed or sprayed

Skin and body protection:

No special required clothing

Respiratory protection:

If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Hygroscopic.
Colour	:	green-blue.
Odour	:	odourless.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	1063 g/l 20°C
Solubility	:	Miscible with: Water. Alcohol. Acetone.
Log Pow	:	No data available
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

Miscibility	:	water,acetone,alcohol

SECTION 10: Stability and reactivity

10.1. Reactivity

On burning: release of harmful/irritant gases/vapours e.g.: carbon monoxide - carbon dioxide.

10.2. Chemical stability

The product is stable at normal handling- and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No naked flames, sparks, and do not smoke. moisture.

10.5. Incompatible materials

Strong acid. Oxidizing substances.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

ATE CLP (oral)	500 mg/kg

1,2-Ethanediol (107-21-1)	
LD50 oral rat	7712 mg/kg

1,2-Ethanediol (107-21-1)	
LD50 dermal rat	> 3500 mg/kg Mouse
LD50 dermal rabbit	10600 mg/kg
LC50 inhalation rat (mg/l)	> 2,5 mg/l/6Hrs

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

1,2-Ethanediol (107-21-1)	
NOAEL (chronic, oral, animal/male, 2 years)	1000 mg/kg bodyweight
NOAEL (chronic, oral, animal/female, 2 years)	1500 mg/kg bodyweight

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs (kidneys) through prolonged or repeated exposure.

1,2-Ethanediol (107-21-1)	
NOAEL (oral, rat, 90 days)	200 mg/kg bodyweight/day

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : This product contains ethylene glycol (EG). The toxicity of EG via inhalation or skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz.) for an adult human. Ethylene glycol is oxidized to oxalic acid which results in the deposition of calcium oxalate crystals mainly in the brain and kidneys. Early signs and symptoms of EG poisoning may resemble those of alcohol intoxication. Later, the victim may experience nausea, vomiting, weakness, abdominal and muscle pain, difficulty in breathing and decreased urine output. When EG was heated above the boiling point of water, vapors formed which reportedly caused unconsciousness, increased lymphocyte count, and a rapid, jerky movement of the eyes in persons chronically exposed. When EG was administered orally to pregnant rats and mice, there was an increase in fetal deaths and birth defects. Some of these effects occurred at doses that had no toxic effects on the mothers. We are not aware of any reports that EG causes reproductive toxicity in human beings.
2-Ethylhexanoic acid (2-EXA) caused an increase in liver size and enzyme levels when repeatedly administered to rats via the diet. When administered to pregnant rats by gavage or in drinking water, 2-EXA caused teratogenicity (birth defects) and delayed postnatal development of the pups. Additionally, 2-EXA impaired female fertility in rats. Birth defects were seen in the offspring of mice who were administered sodium 2-ethylhexanoate via intraperitoneal injection during pregnancy.

Other information : Contains small amount Bitrex.
Bitterant agent is a general description for chemical additives that are added to hazardous products to give it a bitter taste, which creates a strong aversion and as such avoids accidental poisonings for especially young children and household pets. It is often used in household cleaners, pesticides and also engine coolants. There are a number of possible chemicals that can be used, however, most commonly known is the Denatonium benzoate (CAS 3734-33-6.).

SECTION 12: Ecological information

12.1. Toxicity

General : According to the criteria of the EC-classification and labelling "dangerous for the environment" (93/21/EEC) the material/product is not to be classified as dangerous to the environment.

1,2-Ethanediol (107-21-1)	
LC50 fish 1	72860 mg/l 96 hrs / Pimephales promelas
EC50 Daphnia 1	> 100 mg/l 48 hrs
EC50 other aquatic organisms 2	> 9600 mg/l 96 hrs / Selenastrum capricornutum
NOEC (chronic)	15380 mg/l Fish Early Life Stage / Pimephales promelas / 7 days

12.2. Persistence and degradability

1,2-Ethanediol (107-21-1)	
Biodegradation	Readily biodegradable

12.3. Bioaccumulative potential

1,2-Ethanediol (107-21-1)	
Log Pow	-1.36
Bioaccumulative potential	There is no bioaccumulation.

12.4. Mobility in soil

Coolant -38°C G11 Ready to Use	
Soil	Prevent soil and water pollution.

1,2-Ethanediol (107-21-1)	
Soil	This material has low volatility and is water soluble hence the potential for mobility is high.

12.5. Results of PBT and vPvB assessment

Component	
Disodium Tetraborate Pentahydrate; Borax Pentahydrate (12179-04-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose as hazardous waste.

Waste materials : Waste disposal according to official state regulations.

European List of Waste (LoW) code : 16 01 14* - antifreeze fluids containing dangerous substances

SECTION 14: Transport information

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

ADR	IMDG
14.1. UN number	
Not applicable	Not applicable
14.2. UN proper shipping name	
Not applicable	Not applicable
14.3. Transport hazard class(es)	
Not applicable	Not applicable
Not applicable	Not applicable
14.4. Packing group	
Not applicable	Not applicable
14.5. Environmental hazards	
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No
No supplementary information available	

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

14.7. Transport in bulk according to Annex II of Marpol 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 a substance on the REACH candidate list in concentration ≥ 0.1% or with a lower specific limit: Disodium tetraborate, anhydrous (EC 215-540-4, CAS 12179-04-3)

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

SDS MPM REACH

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