	SAFETY DATA SHEET	Page : 1 / 13
	Marine Engine Coolant (Pre-Mixed)	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-0085S

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

1.1. Product identifier

Trade name/designation : Marine Engine Coolant (Pre-Mixed)
Product code : 92-8M0056173, 92-8M0117687

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

Main use category : Industrial use, Professional use, Consumer use
Specific end use(s) : Coolant

1.3. Details of the supplier of the safety data sheet

Company : Brunswick Marine EMEA
Parc industriel de Petit-Rechain, Avenue Mercury 8
4800 Verviers, Belgium
Telephone +32 (0)87 32 32 11
E-mail: bme.compliance@brunswick.com

1.4. Emergency telephone number

Emergency telephone : 0032 3 575 55 55

Ireland

National Poisons Information Centre
Beaumont Hospital

+353 1 809 21 66 (public, 8am - 10pm, 7/7)
+353 01 809 2566 (Professionals, 24/7)

United Kingdom

National Poisons Information Service
(Newcastle Centre)
Regional Drugs and Therapeutics Centre,
Wolfson Unit

0844 892 0111 (UK only, 24/7, healthcare professionals only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EU) 1272/2008

CLP-Classification : The product is classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

STOT RE 2 H373

Full text of H-statements: see section 16


2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC

Classification : This mixture is classified as hazardous according to 1999/45/EC.
Xn; R22

Full text of R-phrases: see section 16

2.2. Label elements

2.2.1. Labelling according to Regulation (EU) 1272/2008

	SAFETY DATA SHEET	Page : 2 / 13
	Marine Engine Coolant (Pre-Mixed)	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-0085S

Hazard pictograms (CLP) :



GHS08

Signal word : Warning
 Contains : ethanediol; ethylene glycol
 Hazard statements (CLP) : H373 - May cause damage to organs through prolonged or repeated exposure.
 Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
 P102 - Keep out of reach of children.
 P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
 P314 - Get medical advice/attention if you feel unwell.
 P501 - Dispose of contents/container to an approved waste disposal plant

2.2.2. Labelling according to Directives (67/548 - 1999/45)

Not relevant

2.3. Other hazards

Other hazards : Results of PBT and vPvB assessment :
 Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
ethanediol; ethylene glycol	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index) 603-027-00-1 (REACH-no) 01-2119456816-28-XXXX	50 - 55	Not classified
sodium nitrite	(CAS-No.) 7632-00-0 (EC-No.) 231-555-9 (EC Index) 007-010-00-4	0,1 - 0,25	O; R8 T; R25 N; R50
Potassium nitrate	(CAS-No.) 7757-79-1 (EC-No.) 231-818-8	0,1 - 0,25	O; R8


Substance name	Product identifier	%	Classification (EC) No. 1272/2008 [CLP]
ethanediol; ethylene glycol	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index) 603-027-00-1 (REACH-no) 01-2119456816-28-XXXX	50 - 55	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
sodium nitrite	(CAS-No.) 7632-00-0 (EC-No.) 231-555-9 (EC Index) 007-010-00-4	0,1 - 0,25	Ox. Sol. 3, H272 Acute Tox. 3 (Oral), H301 Eye Irrit. 2, H319 Aquatic Acute 1, H400
Potassium nitrate	(CAS-No.) 7757-79-1 (EC-No.) 231-818-8	0,1 - 0,25	Ox. Sol. 3, H272

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation : Remove person to fresh air and keep comfortable for breathing.
 In case of doubt or persistent symptoms, consult always a physician

	SAFETY DATA SHEET	Page : 3 / 13
	Marine Engine Coolant (Pre-Mixed)	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-0085S

- Skin contact : Take off contaminated clothing.
Gently wash with plenty of soap and water.
In case of doubt or persistent symptoms, consult always a physician
- Eyes contact : Rinse immediately carefully and thoroughly with eye-bath or water.
In case of doubt or persistent symptoms, consult always a physician
- Ingestion : Rinse mouth thoroughly with water.
Get medical advice/attention.
- Additional advice : First aider: Pay attention to self-protection
Concerning personal protective equipment to use, see section 8
Never give anything by mouth to an unconscious person
In case of doubt or persistent symptoms, consult always a physician
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.

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

- Inhalation : No adverse effects are expected. The following symptoms may occur:
- Skin contact : The following symptoms may occur: No adverse effects are expected.
- Eyes contact : No adverse effects are expected. The following symptoms may occur:
- Ingestion : The following symptoms may occur: May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
- Other adverse effects : May cause damage to organs through prolonged or repeated exposure.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray, alcohol resistant foam, Dry extinguishing powder, Carbon dioxide
- For safety reasons unsuitable extinguishing agents : Strong water jet

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Non flammable
- Specific hazards : Heating causes rise in pressure with risk of bursting.
Hazardous combustion products
Carbon oxides


5.3. Advice for firefighters

- Advice for firefighters : Special protective equipment for firefighters.
In case of fire: Wear self-contained breathing apparatus.
Use water spray or fog for cooling exposed containers
Do not allow run-off from fire-fighting to enter drains or water courses.
Dispose of waste in accordance with environmental legislation
Evacuate personnel to a safe area

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel : Evacuate personnel to a safe area
Stay upwind/keep distance from source.
Provide adequate ventilation
Use personal protective equipment as required.
Concerning personal protective equipment to use, see section 8
Do not breathe vapour/aerosol
Avoid contact with skin, eyes and clothing

	SAFETY DATA SHEET	Page : 4 / 13
	Marine Engine Coolant (Pre-Mixed)	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-0085S

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place
Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Environmental precautions : Do not allow to enter into surface water or drains
Notify authorities if product enters sewers or public waters

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so.
Dam up.
Clean-up methods - small spillage: Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or powdered limestone, Collect in closed and suitable containers for disposal.
Clean-up methods - large spillage: Large spills should be collected mechanically (remove by pumping) for disposal, Collect in closed and suitable containers for disposal.
Dispose of waste product or used containers according to local regulations.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8
Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling : Provide adequate ventilation
Use personal protective equipment as required.
Concerning personal protective equipment to use, see section 8
Do not breathe vapour/aerosol
Avoid contact with skin, eyes and clothing
Take any precaution to avoid mixing with incompatible materials.
See also section 10
Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time).
Do not allow contact with soil, surface or ground water.

Advices on general occupational hygiene : Keep good industrial hygiene
Wash hands before breaks and immediately after using the product.
When using do not eat, drink or smoke.
Keep away from food, drink and animal feedingstuffs
Keep work clothes separately.
Take off contaminated clothing.
Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep in a dry, cool and well-ventilated place.
Do not store near or with any of the incompatible materials listed in section 10.
Bund storage facilities to prevent soil and water pollution in the event of spillage.


Packaging materials : Keep/Store only in original container.

7.3. Specific end use(s)


SECTION 8: Exposure controls/personal protection

8.1. Control parameters


Exposure limit values :

	SAFETY DATA SHEET		Page : 5 / 13
			Revision nr : 1.1
	Marine Engine Coolant (Pre-Mixed)		Issue date : 25/03/2015
			Supersedes : 766-01-0085S

ethanediol; ethylene glycol (107-21-1)		
EU	IOELV TWA (mg/m ³)	52 mg/m ³
EU	IOELV TWA (ppm)	20 ppm
EU	IOELV STEL (mg/m ³)	104 mg/m ³
EU	IOELV STEL (ppm)	40 ppm
EU	Notes	Possibility of significant uptake through the skin
Austria	MAK (mg/m ³)	26 mg/m ³
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (mg/m ³)	52 mg/m ³
Austria	MAK Short time value (ppm)	20 ppm
Bulgaria	OEL TWA (mg/m ³)	52 mg/m ³
Bulgaria	OEL TWA (ppm)	20 ppm
Bulgaria	OEL STEL (mg/m ³)	104 mg/m ³
Bulgaria	OEL STEL (ppm)	40 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	52 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	20 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	104 mg/m ³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	40 ppm
Cyprus	OEL TWA (mg/m ³)	52 mg/m ³
Cyprus	OEL TWA (ppm)	20 ppm
Cyprus	OEL STEL (mg/m ³)	104 mg/m ³
Cyprus	OEL STEL (ppm)	40 ppm
France	VLE (mg/m ³)	104 mg/m ³ (indicative limit-vapor)
France	VLE (ppm)	40 ppm (indicative limit-vapor)
France	VME (mg/m ³)	52 mg/m ³ (indicative limit-vapor)
France	VME (ppm)	20 ppm (indicative limit-vapor)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	26 mg/m ³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	10 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Gibraltar	8h mg/m ³	52 mg/m ³
Gibraltar	8h ppm	20 ppm
Gibraltar	Short-term mg/m ³	104 mg/m ³
Gibraltar	Short-term ppm	40 ppm
Greece	OEL TWA (mg/m ³)	125 mg/m ³ (vapor)
Greece	OEL TWA (ppm)	50 ppm (vapor)
Greece	OEL STEL (mg/m ³)	125 mg/m ³ (vapor)
Greece	OEL STEL (ppm)	50 ppm (vapor)
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	25 ppm (vapor fraction)
Italy - Portugal - USA ACGIH	ACGIH STEL (mg/m ³)	10 mg/m ³ (inhalable particulate matter, aerosol only)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	50 ppm (vapor fraction)
Italy	OEL TWA (mg/m ³)	52 mg/m ³
Italy	OEL TWA (ppm)	20 ppm

	SAFETY DATA SHEET	Page : 6 / 13
	Marine Engine Coolant (Pre-Mixed)	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-0085S

ethanediol; ethylene glycol (107-21-1)		
Italy	OEL STEL (mg/m ³)	104 mg/m ³
Italy	OEL STEL (ppm)	40 ppm
Latvia	OEL TWA (mg/m ³)	52 mg/m ³
Latvia	OEL TWA (ppm)	20 ppm
Spain	VLA-ED (mg/m ³)	52 mg/m ³ (indicative limit value)
Spain	VLA-ED (ppm)	20 ppm (indicative limit value)
Spain	VLA-EC (mg/m ³)	104 mg/m ³
Spain	VLA-EC (ppm)	40 ppm
Switzerland	KZGW (mg/m ³)	52 mg/m ³
Switzerland	KZGW (ppm)	20 ppm
Switzerland	MAK (mg/m ³)	26 mg/m ³
Switzerland	MAK (ppm)	10 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	52 mg/m ³ (fume) 10 mg/m ³ (droplets)
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	104 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (particulates) 52 mg/m ³ (vapour)
United Kingdom	WEL TWA (ppm)	20 ppm (vapour)
United Kingdom	WEL STEL (mg/m ³)	104 mg/m ³ (vapour) 30 mg/m ³ (calculated-particulate)
United Kingdom	WEL STEL (ppm)	40 ppm (vapour)
Czech Republic	Expoziční limity (PEL) (mg/m ³)	50 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	26 mg/m ³ 10 mg/m ³ (atomized)
Denmark	Grænseværdie (langvarig) (ppm)	10 ppm
Finland	HTP-arvo (8h) (mg/m ³)	50 mg/m ³
Finland	HTP-arvo (8h) (ppm)	20 ppm
Finland	HTP-arvo (15 min)	100 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	40 ppm
Hungary	AK-érték	52 mg/m ³
Hungary	CK-érték	104 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³ (particulate) 52 mg/m ³ (vapour)
Ireland	OEL (8 hours ref) (ppm)	20 ppm (vapour)
Ireland	OEL (15 min ref) (mg/m ³)	30 mg/m ³ (calculated-particulate) 104 mg/m ³ (vapour)
Ireland	OEL (15 min ref) (ppm)	40 ppm (vapour)
Lithuania	IPRV (mg/m ³)	25 mg/m ³ (aerosol and vapor)
Lithuania	IPRV (ppm)	10 ppm (aerosol and vapor)
Lithuania	TPRV (mg/m ³)	50 mg/m ³ (aerosol and vapor)
Lithuania	TPRV (ppm)	20 ppm (aerosol and vapor)
Malta	OEL TWA (mg/m ³)	52 mg/m ³
Malta	OEL TWA (ppm)	20 ppm
Malta	OEL STEL (mg/m ³)	104 mg/m ³
Malta	OEL STEL (ppm)	40 ppm
Norway	Grenseverdier (AN) (mg/m ³)	52 mg/m ³ (total sum of gas and particulate matter (aerosol) of the substance-total dust and vapor)

	SAFETY DATA SHEET		Page : 7 / 13
			Revision nr : 1.1
	Marine Engine Coolant (Pre-Mixed)		Issue date : 25/03/2015
			Supersedes : 766-01-0085S

ethanediol; ethylene glycol (107-21-1)		
Norway	Grenseverdier (AN) (ppm)	20 ppm (total sum of gas and particulate matter (aerosol) of the substance-total dust and vapor)
Norway	Grenseverdier (Korttidsverdi) (mg/m ³)	104 mg/m ³ (total sum of gas and particulate matter (aerosol) of the substance-dust)
Norway	Grenseverdier (Korttidsverdi) (ppm)	40 ppm (total sum of gas and particulate matter (aerosol) of the substance)
Poland	NDS (mg/m ³)	15 mg/m ³
Poland	NDSch (mg/m ³)	50 mg/m ³
Romania	OEL TWA (mg/m ³)	52 mg/m ³
Romania	OEL TWA (ppm)	20 ppm
Romania	OEL STEL (mg/m ³)	104 mg/m ³
Romania	OEL STEL (ppm)	40 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	52 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	104 mg/m ³
Sweden	nivågränsvärde (NVG) (mg/m ³)	25 mg/m ³ (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	nivågränsvärde (NVG) (ppm)	10 ppm (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	kortidsvärde (KTV) (mg/m ³)	104 mg/m ³ (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	kortidsvärde (KTV) (ppm)	40 ppm (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)

sodium nitrite (7632-00-0)		
Lithuania	NRV (mg/m ³)	0,1 mg/m ³


Potassium nitrate (7757-79-1)		
Bulgaria	OEL TWA (mg/m ³)	5 mg/m ³
Latvia	OEL TWA (mg/m ³)	5 mg/m ³
Lithuania	IPRV (mg/m ³)	5 mg/m ³

Monitoring methods : Personal air monitoring
Room air monitoring

8.2. Exposure controls

Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Half-face mask (EN 140)
Full face mask (EN 136)
Filter type: ABEK + P
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)

	SAFETY DATA SHEET	Page : 8 / 13
	Marine Engine Coolant (Pre-Mixed)	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-0085S

Hand protection	:	Wear chemically resistant gloves (tested to EN374) ,The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Eye protection	:	Use suitable eye protection. (EN166): Safety glasses
Body protection	:	Wear suitable protective clothing.
Thermal hazard protection	:	Not required for normal conditions of use Use dedicated equipment.
Engineering measure(s)	:	Provide adequate ventilation Organisational measures to prevent /limit releases, dispersion and exposure Safe handling: see section 7 .
Environmental exposure controls	:	Do not allow contact with soil, surface or ground water. Comply with applicable Community environmental protection legislation.


SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	Blue
Odour	:	Characteristic
Odour threshold	:	No data available
pH	:	9,98
Melting / freezing point	:	-
Freezing point	:	-36 °C
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable, liquid, Not applicable
Upper / lower flammability or explosive limits	:	No data available
Vapour pressure	:	No data available
Vapour density	:	1,067 - 1,074
Relative density	:	No data available
Water solubility	:	No data available
Solubility in different media	:	No data available
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available

9.2. Other information

No data available

	SAFETY DATA SHEET	Page : 9 / 13
	Marine Engine Coolant (Pre-Mixed)	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-0085S

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity : None under normal processing.
Reference to other sections: 10.4 & 10.5

10.2. Chemical stability

Chemical stability : The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions : None under normal processing.

10.4. Conditions to avoid

Conditions to avoid : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Protect from moisture.
Safe handling: see section 7

10.5. Incompatible materials

Incompatible materials : Safe handling: see section 7

10.6. Hazardous decomposition products

Hazardous decomposition products : Reference to other sections: 5.2

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)

Marine Engine Coolant (Pre-Mixed)	
LD50/oral/rat	4700 mg/kg


ethanediol; ethylene glycol (107-21-1)	
LD50/oral/rat	4700 mg/kg
LD50/dermal/rat	10600 mg/kg
LC50/inhalation/4h/rat	> 2,5 mg/l/6h
ATE CLP (oral)	500 mg/kg bodyweight
Additional information	LDLo, human: 398 mg/kg (Sudebno-Meditsinskaya Ekspertiza. Forensic Medical Examination. Vol. 26(2), Pg. 48, 1983.)

sodium nitrite (7632-00-0)	
LD50/oral/rat	85 mg/kg
LC50/inhalation/4h/rat	5,5 mg/l/4h
ATE CLP (oral)	85 mg/kg bodyweight
ATE CLP (vapours)	5,5 mg/l/4h
ATE CLP (dust,mist)	5,5 mg/l/4h

Potassium nitrate (7757-79-1)	
LD50/oral/rat	3015 mg/kg

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: 9,98

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: 9,98

	SAFETY DATA SHEET	Page : 10 / 13
	Marine Engine Coolant (Pre-Mixed)	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-0085S

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)

ethanediol; ethylene glycol (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 (Based on available data, the classification criteria are not met.)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met.)

Marine Engine Coolant (Pre-Mixed)	
LOAEL (oral, rat)	<= mg/kg bodyweight

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

ethanediol; ethylene glycol (107-21-1)	
NOAEL (oral, rat, 90 days)	200 mg/kg bodyweight/day OECD Guideline 407

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

Other information : Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.

Other information

Symptoms related to the physical, chemical and toxicological characteristics, For further information see section 4

SECTION 12: Ecological information


12.1. Toxicity

Toxicity : According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

ethanediol; ethylene glycol (107-21-1)	
LC50 fish 1	41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 96h algae (1)	6500 - 13000 mg/l (Species: Pseudokirchneriella subcapitata)
NOEC (chronic)	15380 mg/l @ 7d Pimephales promelas

sodium nitrite (7632-00-0)	
LC50 fish 1	0,19 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 1	87 mg/l
LC50 fish 2	0,092 - 0,13 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

Potassium nitrate (7757-79-1)	
LC50 fish 1	1378 mg/l (Poecilia reticulata)

	SAFETY DATA SHEET	Page : 11 / 13
		Revision nr : 1.1
		Issue date : 25/03/2015
	Marine Engine Coolant (Pre-Mixed)	Supersedes :
		766-01-0085S

12.2. Persistence and degradability

Persistence and degradability : No data available

12.3. Bioaccumulative potential

Bioaccumulative potential : No data available
 Partition coefficient n-octanol/water : No data available

12.4. Mobility in soil

Mobility in soil : No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB data : Not applicable

12.6. Other adverse effects

Other information : No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product waste: : Do not allow contact with soil, surface or ground water.
 Dispose of empty containers and wastes safely
 Safe handling: see section 7
 Refer to manufacturer/supplier for information on recovery/recycling
 Recycling is preferred to disposal or incineration
 If recycling is not possible, eliminate in accordance with local valid waste disposal regulations

Contaminated packaging : Handle contaminated packages in the same way as the substance itself.
 Dispose of contaminated materials in accordance with current regulations

European waste catalogue : This material and its container must be disposed of as hazardous waste.
 Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

14.1. UN number

UN number : NA

14.2. UN proper shipping name

Proper Shipping Name : NA

14.3. Transport hazard class(es)

14.3.1. Overland transport

Class(es) : Not applicable

14.3.2. Inland waterway transport (ADN)No data available

14.3.3. Transport by sea

Class or Division : Not applicable

14.3.4. Air transport


Class or Division : Not applicable

14.4. Packing group

Packing group : NA

14.5. Environmental hazards

Other information : Not applicable.

	SAFETY DATA SHEET	Page : 12 / 13
		Revision nr : 1.1
		Issue date : 25/03/2015
	Marine Engine Coolant (Pre-Mixed)	Supersedes :
		766-01-0085S

14.6 Special precautions for user

Special precautions for user : Not applicable.

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

Code: IBC : 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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006 :

3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10 : Marine Engine Coolant (Pre-Mixed)

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008 : Marine Engine Coolant (Pre-Mixed)

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC. : None

Authorisations : Not applicable

Special rules on packaging : Tactile warning according to EN/ISO 11683.

15.1.2. National regulations

DE : WGK : 2


15.2. Chemical safety assessment

Chemical safety assessment : Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Acute Tox. 3 (Oral) : Acute toxicity Category 3
 Acute Tox. 4 (Oral) : Acute toxicity Category 4
 Aquatic Acute 1 : Hazardous to the aquatic environment - Aquatic Acute 1
 Eye Irrit. 2 : Serious eye damage/eye irritation Category 2
 Ox. Sol. 3 : Oxidizing solid Category 3
 STOT RE 2 : Specific target organ toxicity — Repeated exposure, Category 2
 H272 : May intensify fire; oxidiser.
 H301 : Toxic if swallowed.
 H302 : Harmful if swallowed.
 H319 : Causes serious eye irritation.
 H373 : May cause damage to organs through prolonged or repeated exposure.
 H400 : Very toxic to aquatic life.
 R22 : Harmful if swallowed
 Xn : Harmful

	SAFETY DATA SHEET	Page : 13 / 13
	Marine Engine Coolant (Pre-Mixed)	Revision nr : 1.1
		Issue date : 25/03/2015
		Supersedes :
		766-01-0085S

Key literature references and sources for data : LOLI
<http://www.echemportal.org>
MSDS

Abbreviations and acronyms :

- ABM = Algemene beoordelingsmethodiek
- ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
- ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
- CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
- IATA = International Air Transport Association
- IMDG = International Maritime Dangerous Goods Code
- LEL = Lower Explosive Limit/Lower Explosion Limit
- UEL = Upper Explosion Limit/Upper Explosive Limit
- REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
- BTT = Breakthrough time (maximum wearing time)
- DMEL = Derived Minimal Effect level
- DNEL = Derived No Effect Level
- EC50 = Median Effective Concentration
- EL50 = Median effective level
- ErC50 = EC50 in terms of reduction of growth rate
- ErL50 = EL50 in terms of reduction of growth rate
- EWC = European waste catalogue
- LC50 = Median lethal concentration
- LD50 = Median lethal dose
- LL50 = Median lethal level
- NA = Not applicable
- NOEC = No observed effect concentration
- NOEL: no-observed-effect level
- NOELR = No observed effect loading rate
- NOAEC = No observed adverse effect concentration
- NOAEL = No observed adverse effect level
- N.O.S. = Not Otherwise Specified
- OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
- PNEC = Predicted No Effect Concentration
- Quantitative structure-activity relationship (QSAR)
- STOT = Specific Target Organ Toxicity
- TWA = time weighted average
- VOC = Volatile organic compounds
- WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.