

# Material Safety Data Sheet

Date of issue: 01.07.2016

Version: 3.0/EN

[Prepared pursuant to Regulation (EC) No. 1907/2006 –REACH as later amended]

## Section 1: Product and company identification

### Product identification

Trade name **SKELJUNGUR FROSTLOGUR RAUDUR G12**

#### 1.1 Recommended use of the product and restrictions on use

Identified use: non-silica cooling liquid concentrate protects all cooling system's components and is suitable as firm filler in the whole period of usage of grey iron alloy or aluminium. It fulfils requirements of G12

Restricted use: not specified.

#### 1.2 MSDS supplier's details:

Supplier: **VENOL MOTOR OIL Sp. z o. o.**  
Address: ul. Lodowa 107, 93-232 Łódź, Poland  
Telephone/fax: +48 42 649-15-68/+48 42 649-24-93  
E-mail of the person in charge of the MSDS: laboratorium@venol.pl

#### 1.3 Emergency telephone number

112 (emergency number), 998 (fire brigade), 999 (ambulance)

## Section 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### CE 1272/2008 Classification

**Physical and chemical hazards** Not classified

**Environmental hazard** Not classified

**Human health** Acute Tox.4- H302; STOP Rep.2 –H373

#### 2.2 Marking /Label elements

Hazard pictogram and warning phrase



Product label identifier

Contains: ethylene glycol

Risk phrases

H302 Hazardous when swallowed

H373 May cause damage to organs: kidneys, when under long-term or repeated exposure

Safety phrases

P260 Do not inhale vapours/diluted liquid

P270 Do not eat, drink or smoke while using the product

P301+P312 IN CASE OF SWALLOWING: when feeling ad consult the detoxification centre/doctor. Rinse the mouth

P501 Contents/container must be disposed in accordance with local regulation.

### 2.3 Other hazards

Product's ingredients do not meet the criteria of PBT or vPvB pursuant to Annex 13 of REACH Regulation.

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## Section 3: Composition/Information on ingredients

### 3.1 Substances

Non-applicable.

### 3.2 Mixtures

Mono Ethylene Glycol	70-99%	
CAS No.: 107-21-1	CE No: 203-473-3	REAH (registration): 01-2119456816-28- xx
Classification (CE 1272/2008)	Acute Tox. 4 - H302; STOT Rep. 2 - H373	

DI-ETHYLOHEXANE ACID	1-5%	
CAS No: 149-57-5	CE No: 205-743-6	Registration: 01-2119488942-23-xxxx
Classification (CE 1272/2008)	Repr. 2 - H361d	

POTASSIUM HYDRO-OXIDE	0.1-1%	
CAS No: 1310-58-3	CE No: 215-181-3	Registrartion : 01-2119487136-33-xxxx
Classification (CE 1272/2008)	Acute Tox. 4 - H302; Skin Corr. 1A - H314	

*Full meanings of H phrases in Section 16*

REACH registration notes:

This product is a mixture. All components are registered in accordance with REAH regulation by the manufacturer or supplier

Notes on composition:

The potassium hydroxide and 2- ethylhexanoic acid are neutralised in the formulation so that although they are both corrosive materials the final formulation is non-corrosive.

## Section 4: First aid measures

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## 4.1 First aid measures

### General information

The casualty must be removed from the contamination source.

General first-aid measures: rest, warmth, clean air.

Keep the casualty lying in a fixed lateral position and ensure he/she breathes normally.

CAUTION: Salvage personnel must be aware of their own hazards during the rescue operation.

Inhalation: remove the casualty from the danger zone. Keep the casualty lying in a fixed lateral position and ensure he/she breathes normally. Provide the medical attention.

Swallowing: DO NOT INDUCE VOMITTING. In case of risk of lost consciousness, keep the casualty lying in a fixed lateral position. Give the casualty lot of water to drink. Do not give anything to drink an unconscious person .Provide immediately the medical attention.

Skin contact: remove the contaminated clothing. Wash the contaminated skin immediately with soap and water Consult a doctor if discomforting symptoms develop.

Eye contact: Eyes must be immediately flushed thoroughly with water, while keeping the eyelids open. Put out the contact lenses before washing. Keep flushing the eyes for at least 15. Consult a doctor if discomforting symptoms develop.

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

In case of inhalation: no particular symptoms reported

In case of swallowing: hazardous after swallowing

In case of skin contact: no particular symptoms reported

In case of eye contact: no particular symptoms reported

## 4.3 Indication of any immediate medical attention and special treatment needed:

Treatment of symptoms

Section 5: Fire fighting measures
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## 5.1 Extinguishing media

### Extinguishing media:

Stop the flow of the material in the fire direction

Put out the fire with

(alcohol-resistant) extinguishing foam, water fog, CO<sub>2</sub>, extinguishing powders, Dry media: sand, dolomit etc

Unsuitable extinguishing media: No data.

## 5.2 Specific hazards related to the substance or mixture

### Hazardous combustion products:

Under fire, hazardous gases are generated: CO, CO<sub>2</sub>

### Extraordinary fire or explosion hazards:

Heat from a fire could result in drum bursting.

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## 5.3 Fire-fighting instructions

Avoid inhalation of fire vapours.

Containers in risk of fire and vapours propagation must be cooled down with water

Do not release fire water/ fire-fighting runoff into sewers or surface and underground waterways. Direct water jets with trenches

Wear typical personal protective equipment. Do not enter or be in the fire area without adequate clothing resistant to chemicals and a self-contained breathing apparatus..

## Section 6: Accidental release measures

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

Use personal protective equipment as per Clause 8 of this MSDS

No action shall be taken involving any personal risk or without suitable training.

Do not touch, walk over the spilled material Avoid inhalation of vapours and sprays

### 6.2 Environmental precautions

Do not release into sewers, surface or underground waterways. Protect against entering into drains system

### 6.3 Methods and materials to contain contamination and eliminate contamination effects:

Stop leakage if it is possible without risks. Put out all ignition sources.

Avoid sparkles, flames, high temperature, and smoke. Use appropriate protective equipment. Collect with vermiculite, dry sand or soil. Collected the spilled /leaked material should put into containers close tight and put away for disposal according to local regulation. .

### 6.4 Reference to other sections

Product waste handling- see section 13. Personal protection equipment- see section 8.

## Section 7: Handling and storage

### 7.1 Safe handling measures:

Do not use in small rooms without any ventilation and/or protective equipment. Remove all ignition sources.

Keep away from sources of heat temperature, sparkles, and open fire. Avoid acids, humidity, and flammable materials.. Do not inhale vapours and sprays. Avoid contact with skin and eyes.

### 7.2 Conditions for safe storage, including information on any incompatibility

Keep only in a tight closed original packaging in dry, cool and well-ventilated places Keep away from direct sunlight, and heat and open fire.

### 7.3 Specific end use

Information on use other specified in subsection 1.2

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

Nazwa	STD	NDS		NDSCH		Uwagi
ETHYLENE GLYCOL	WEL	20 ppm(Sk)	52 mg/m3(Sk)	40 ppm(Sk)	104 mg/m3(Sk)	
POTASSIUM HYDROOXIDE	NDS		0.5 mg/m3		1 mg/m3	

NDS = Maximum Admissible  
Concentration WEL = Workplace  
Exposure Limit.  
Notes on components  
WEL = Workplace Exposure Limits

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## DI ETHYLOEXANE ACID (CAS 149-57-5)

Industrial mg/kg/day	Skin	Long-term	General/organism	12
Industrial	Inhalation	Long-term	General/organism	32 mg/m <sup>3</sup>
Personal mg/kg/day	Skin	Long term	General/organism	6
Personal mg/m <sup>3</sup>	Inhalation	Long-term	General/organism	8
Personal mg/kg/day	Oral	Long-term	General/organism	2.5

### **PN EC**

Freshwater mg/l		0.36
Sea water mg/l		0.036
STP 71.7	mg/l	
Sediments mg/kg Soil		6.37
mg/kg Periodic release		1.06
mg/l		0.493
Sea sediment	0.637	mg/kg

## MONOETHYLENE GLYCOL (CAS 107-21-1)

Industrial	Inhalation.	Long-term	Local effects	35 mg/m <sup>3</sup>
Industrial	Skin	Long-term	General/organism	106 mg/kg
Personal	Inhalation	Long-term	Local effects	7 mg/m <sup>3</sup>
Personal	Skin	Long-term	General/organism	53 mg/m <sup>3</sup>

### **PNEC**

Freshwater	10
	mg/l
Sea water	1
	mg/l
STP	199.5
	mg/l
Sediment Freshwater	20.9
	mg/kg
Soil	1.53
	mg/kg

## 8.2. Exposure control

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## Protective equipment



### Technical protection means:

It is forbidden to handle the material in small rooms without adequate ventilation.

Provide for adequate anti-explosive general and local ventilation

Respiratory protection: In case of inadequate ventilation, use of respiratory protection equipment must be ensured.

### Hand protection

In case of long-term and repeated exposure, protective gloves resistant to chemicals are required. Use protective gloves made from un-penetrable (non-soak able) material. Gloves should be selected in consultation with the supplier who may advise of gloves protection time

Eye protection: approved safety glasses to be used

### Additional protective means:

Use adequate protective clothing against any bursting or contamination. Provide for an eyes-flushing stand and emergency shower

### Hygienic precautions:

Wash yourself after having worked each shift and before eating, smoking and toilet. Contaminated skin must be washed immediately with soap and water. DO NOT SMOKE AT WORK !

### Environment exposure control:

Possible emissions from ventilation systems and processing equipment should be controlled for their compliance with environment protection regulation. In some cases, flushed exhausts, filters or design modifications of the process equipment in order to reduce emissions down to acceptable level.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

appearance/form:	liquid
colour:	not determined
odour:	characteristic
odour threshold:	not determined
pH value:	not determined
melting /solidification point:	-37 deg. C
boiling point and boiling range:	107 deg. C
flash point:	>110 deg. C (method: closed cup)
evaporation rate:	not determined
flammability (solid, gas) :	non-applicable
upper/lower explosion limit:	15.3% vol. 3.2% vol. (for ethylene glycol )
vapour pressure:	not determined
vapour density:	not determined
density:	1.078 g/cm <sup>3</sup>
solubility:	soluble in water, ketones, aldehydes, aliphatic alcohols
partition coefficient: n-octanol/water:	log P <sub>o/w</sub> 1.36 (for ethylene glycol )
auto ignition temp.:	not determined

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decomposition temp.:	not determined
explosive properties:	not demonstrated
oxidation properties:	not demonstrated
viscosity:	not determined

## 9.2 Other information

No additional tests

## Section 10: Stability and reactivity

### 10.1 Reactivity

No known hazards of reactivity are related to this product.

### 10.2 Chemical stability

Product is stable when used and stored normally , as recommended

### 10.3 Possibly hazardous reactions to occur

Hazardous reactions are not to occur under normal handling conditions

### 10.4 Conditions to avoid.

Avoid heat, flames and other sources of ignition

### 10.5 Incompatible materials

Materials to be avoided:

Oxidizing acids, strong oxidizing agents, sulphuric acid, oleum, phosphorous pentasulphide, chlorosulphonic acid

### 10.6 Hazardous decomposition products

None -under normal conditions

## Section 11: Toxicological information

### 11.1 Information on toxicological effects

#### Toxicological information

Toxicity of components as ethanediol

#### ACUTE TOXICITY

ACUTE LD <sub>50</sub> (rat, orally)	7 712 mg/kg
ACUTE LD <sub>50</sub> (skin, mouse)	> 3 500 mg/kg
ACUTE LD <sub>50</sub> (rat, inhalation)	>2. 5 mg/l (vapours) 6 hrs
Reproductive cells mutagenic effects	Negative
Carcinogenic effects	No data

#### Hazardous effects on re-productivity

Reproductive toxicity: Fertility Dosage level; > 1000 mg/kg (oral, rat)

No hazardous effects expected

Reproductive toxicity: Development: No data

#### Toxic effects on target organs – single exposure

STOT - single exposure: No data

#### Toxic effects on target organs – repeated exposure

Organs in risk: Kidneys

Inhalation: No limits under normal room temperature. When heated, irritating vapours may develop.

Swallowing: Hazardous when swallowed

Skin contact: No irritation expected in normal use

Eye contact: May cause temporary irritation.

Hazard type: Swallowing



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## Section 12: Ecological information

**Eco-toxicity: Not considered to be hazardous to environment. Eco-toxicological data on major component.**

### 12.1 Toxicity:

Acute toxicity – Fish LC50 96 hrs 72860 mg/l Pimephales promelas (Strzebla)

Acute Toxicity- Water non-verterbrae EC50 48 hrs > 100 mg/l Daphnia magna

Acute toxicity – Water plants EC50 96 hrs > 6500 mg/l Selenastrum capricornutum

Chironci toxicity – fish at early livig stage  
NOEC 15380 mg/l Pimephales promelas (Strzebla) 7 days

### 12.2 Persistence and degradability

Degradability: - Easily degradable

### 12.3 Bio-cumulative potential

Bio-accumulative coefficient: Low

Division coefficient: -1.36

### 12.4 Moblility in soil

Mobility: Low volatility and solubility in water, so mobility capacity is high

### 12.5 Results of PBT i vPvB assessment

**12.6 This product does not contain PBT or vPvB- type substances**

## Section 13: Disposal considerations

### General information:

Waste to be handled as hazardous. To be disposed of in approved dumping site in accordance with local regulation

### 13.1 Waste disposal methods

This material must be disposed of via an Authorised Waste/Disposal Company in accordance with Local and or National Waste Disposal Regulations.

Waste Classification:

Waste Code: 07 01 04

## Section 14: Transport information

**General: Material is not subject to international dangerous goods regulation (IMGD, ICAO/IATA, ADR/RID)**

### 14.1 UN Number

UN NO. (ADR/RID/AND)- None

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## 14.2 UN carriage number

Not required .

## 14.3 Transport class

Not required .

Transport danger class:

Not required

DR/RID/ADN: Not classified

MDG: None

ICAO: None

Warning signs- Not required for transport

## 14.4 Packing group

Not required

ADR/RID/ADN: None

## 14.5 Environmental hazards

None

## 14.6 Special precautions for user

Information not required

EMS: None

## Section 15: Regulatory information

### 15.1 Safety, health and environmental regulations/ specific to the substance or mixture

Act of 25 February 2011 on substances and mixtures (Journal of Laws No. 63, Item 322 as later amended).

Ordinance of the Minister of Labour and Welfare of 6 June 2014 on maximum admissible concentrations of health-hazardous components in working environment (Journal of Laws 2014 Item 817).

Act of 14 December 2015 on aste (Journal of Laws 2013, Item 21).

Act of 13 June 2013 on packaging and packaging waste management (Journal of Laws 2013 Item 888).

Ordinance of the Minister of Environment of 9 December 2014 on waste catalogue (Journal of Laws 2014 Item 1923).

Ordinance of the Minister of Economy of 21 December 2005 on basic requirements for personal protection equipment (Journal of Laws No. 259 Item 2173).

Ordinance of the Minister of Health of 2 February 2011 on testing and measurement of health-hazardous components in working environment (Journal of Laws No. 33 Item 166).

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

**Regulation (EC) No 1907/2006 – REACH** of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency, amending Regulation (EC) No 1999/45 and repealing Council Regulation (EEC) No. 793/93 and No 1488/94, as well as Council Directive (EEC) No. 76/769 and Commission Directives (EEC) No 91/155, No 93/67, No 93/105 and 2000/21 as later amended.

**Regulation (EC) No. 1272/2008** of the European Parliament and of the Council of 16 December 2008 on classification, labelling, and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No.1907/2006 as later amended.

**Commission Regulation (EU) 2015/830** of 28 May 2015 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

**Directive 2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

**European Parliament and Council Directive 94/62/EC** of 20 December 1994 on packaging and packaging waste.

### 15.2 Chemical safety assessment

Chemical assessment not performed

## Section 16: Other information

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## H Phrases as per Section 3

H302	Hazardous when swallowed
H314	Causes skin burning and damage to eyes
H361d	Suspected hazardous effects on pheotus
H373	May cause damage to organs in case of long-term or repeated exposure

## Key to abbreviations and acronyms

PBT	Persistent, bio accumulative and toxic substances
vPvB	Very persistent and high bio accumulative-potential substances
NDS	Peak Admissible Concentration
NDSch	Maximum Short Term Admissible Concentration
NDSP	Maximum Threshold Admissible Concentration
DSB	Admissible Concentration in Biological Material
PNEC	Expected concentration not causing changes in environment
DNEL	Derrivative level not causing changes
Acute Tox. 4	Acute toxic Cat 4
STOT RE. 2	Toxicity on target organs- multiple exposure Category 2
Eye Irrit. 2	Eye irritatnt Cat 2
Repr. Cat 3	Reproduction hazardous Cat 3
Skin Corr. 1A	Skin corrosive Cat 1A

## Trainings

Prior to commencing usage of the product, the user should make themselves aware of industrial health and safety rules on handling chemicals, and in particular they should receive an adequate on-the-job training. Persons handling transport should be trained for ADR stipulations with regard to duties (general on the-job training on safety)

## Supplementary information

Classification was made based on physical and mechanical tests and data on hazardous ingredients by way of the calculation method as set forth in CLP- Regulation (EC) No 1272/2008 as later amended.

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The above information is based on current data available on the product and manufacturer's possessed experience and knowledge with that regard. The information provided in this Sheet does not constitute any qualitative description of the product or any guarantee of properties specified herein. This must be regarded as guide to safe handling in transport, storage and use of the product only. The user may not be discharged from any responsibility for their improper use of the above information or incompliance with any respective regulation.