

(GB)

Page 1 of 11
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 31.03.2016 / 0004
Replacing version dated / version: 21.08.2015 / 0003
Valid from: 31.03.2016
PDF print date: 01.04.2016
Coolant Ready Mix RAF12 5 L
Art.: 8810

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Coolant Ready Mix RAF12 5 L
Art.: 8810

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

Relevant identified uses of the substance or mixture:

Anti-freeze

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

(GB)

LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany
Phone: (+49) 0731-1420-0, Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

| Hazard class | Hazard category | Hazard statement |
|--------------|-----------------|--|
| STOT RE | 2 | H373-May cause damage to organs through prolonged or repeated exposure if swallowed (kidneys). |

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Warning

H373-May cause damage to organs through prolonged or repeated exposure if swallowed (kidneys).

GB

Page 2 of 11
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 31.03.2016 / 0004
 Replacing version dated / version: 21.08.2015 / 0003
 Valid from: 31.03.2016
 PDF print date: 01.04.2016
 Coolant Ready Mix RAF12 5 L
 Art.: 8810

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.
 P314-Get medical advice/attention if you feel unwell.
 P501-Dispose of contents/container safely.

Ethanediol

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.
 The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture

| Ethanediol | Substance for which an EU exposure limit value applies. |
|---|---|
| Registration number (REACH) | 01-2119456816-28-XXXX |
| Index | 603-027-00-1 |
| EINECS, ELINCS, NLP | 203-473-3 |
| CAS | 107-21-1 |
| content % | 25-50 |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Acute Tox. 4, H302 STOT RE 2, H373 (kidneys) (oral) |

| Sodium-2-ethylhexanoate | |
|---|----------------|
| Registration number (REACH) | -- |
| Index | --- |
| EINECS, ELINCS, NLP | 243-283-8 |
| CAS | 19766-89-3 |
| content % | 1-<3 |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Repr. 2, H361d |

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 31.03.2016 / 0004

Replacing version dated / version: 21.08.2015 / 0003

Valid from: 31.03.2016

PDF print date: 01.04.2016

Coolant Ready Mix RAF12 5 L

Art.: 8810

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

effects/damages the central nervous system

unconsciousness

liver and kidney damage

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

Antidote:

None known

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray / alcohol resistant foam / CO₂ / dry extinguisher

Unsuitable extinguishing media

None known

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Toxic gases

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.

Remove possible causes of ignition - do not smoke.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

For large quantities:

Pump product off

For residue:

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

GB

Page 4 of 11
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 31.03.2016 / 0004
 Replacing version dated / version: 21.08.2015 / 0003
 Valid from: 31.03.2016
 PDF print date: 01.04.2016
 Coolant Ready Mix RAF12 5 L
 Art.: 8810

Ensure good ventilation.
 Avoid contact with eyes or skin.
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
 Observe directions on label and instructions for use.
 Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
 Store product closed and only in original packing.
 Not to be stored in gangways or stair wells.
 Store in a dry place.
 Store cool.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Chemical Name | Ethanediol | Content %:25-50 |
|---|--|---|
| WEL-TWA: 10 mg/m ³ (particulate), 52 mg/m ³ (vapour) (WEL), 20 ppm (52 mg/m ³) (EU) | WEL-STEL: 104 mg/m ³ (vapour) (WEL), 40 ppm (104 mg/m ³) (EU) | --- |
| Monitoring procedures: | --- | |
| BMGV: --- | | Other information: Sk (particulate, vapour) |

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

| Ethanediol | | | | | | |
|---------------------|--|-----------------------------|------------|-------|-------------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| | Environment - freshwater | | PNEC | 10 | mg/l | |
| | Environment - marine | | PNEC | 1 | mg/l | |
| | Environment - sediment | | PNEC | 20,9 | mg/kg | |
| | Environment - soil | | PNEC | 1,53 | mg/kg | |
| | Environment - sewage treatment plant | | PNEC | 199,5 | mg/l | |
| Consumer | Human - inhalation | Long term, local effects | DNEL | 7 | mg/m ³ | |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 53 | mg/kg | |
| Workers / employees | Human - inhalation | Long term, local effects | DNEL | 35 | mg/m ³ | |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 106 | mg/kg | |

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
 Applies only if maximum permissible exposure values are listed here.

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 31.03.2016 / 0004
Replacing version dated / version: 21.08.2015 / 0003
Valid from: 31.03.2016
PDF print date: 01.04.2016
Coolant Ready Mix RAF12 5 L
Art.: 8810

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

If applicable

Protective Neoprene® / polychloroprene gloves (EN 374).

Protective nitrile gloves (EN 374)

Minimum layer thickness in mm:

0,4

Permeation time (penetration time) in minutes:

> 480

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Filter A2 P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|--------------------------------------|
| Physical state: | Liquid |
| Colour: | Red |
| Odour: | Mild |
| Odour threshold: | Not determined |
| pH-value: | Not determined |
| Melting point/freezing point: | Not determined |
| Initial boiling point and boiling range: | Not determined |
| Flash point: | >115 °C (Pensky-Martens, closed cup) |
| Evaporation rate: | Not determined |
| Flammability (solid, gas): | Not determined |
| Lower explosive limit: | Not determined |
| Upper explosive limit: | Not determined |
| Vapour pressure: | <0,01 mmHg (20°C) |
| Vapour density (air = 1): | Not determined |

Page 6 of 11
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 31.03.2016 / 0004
 Replacing version dated / version: 21.08.2015 / 0003
 Valid from: 31.03.2016
 PDF print date: 01.04.2016
 Coolant Ready Mix RAF12 5 L
 Art.: 8810

| | |
|--|---------------------------|
| Density: | Not determined |
| Bulk density: | n.a. |
| Solubility(ies): | Not determined |
| Water solubility: | Mixable |
| Partition coefficient (n-octanol/water): | Not determined |
| Auto-ignition temperature: | Not determined |
| Decomposition temperature: | Not determined |
| Viscosity: | Not determined |
| Explosive properties: | Product is not explosive. |
| Oxidising properties: | No |

9.2 Other information

| | |
|------------------------------|----------------|
| Miscibility: | Not determined |
| Fat solubility / solvent: | Not determined |
| Conductivity: | Not determined |
| Surface tension: | Not determined |
| Solvents content: | Not determined |
| Metal content: | Not determined |
| Molar mass: | Not determined |
| Chemical heat of combustion: | Not determined |

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

Strong heat

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

Avoid contact with strong acids.

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

Coolant Ready Mix RAF12 5 L

Art.: 8810

| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|---|----------|-------|-------|----------|-------------|------------------|
| Acute toxicity, by oral route: | ATE | >2000 | mg/kg | | | calculated value |
| Acute toxicity, by dermal route: | | | | | | n.d.a. |
| Acute toxicity, by inhalation: | | | | | | n.d.a. |
| Skin corrosion/irritation: | | | | | | n.d.a. |
| Serious eye damage/irritation: | | | | | | n.d.a. |
| Respiratory or skin sensitisation: | | | | | | n.d.a. |
| Germ cell mutagenicity: | | | | | | n.d.a. |
| Carcinogenicity: | | | | | | n.d.a. |
| Reproductive toxicity: | | | | | | n.d.a. |
| Specific target organ toxicity - single exposure (STOT-SE): | | | | | | n.d.a. |
| Specific target organ toxicity - repeated exposure (STOT-RE): | | | | | | n.d.a. |
| Aspiration hazard: | | | | | | n.d.a. |
| Symptoms: | | | | | | n.d.a. |

GB

Page 7 of 11
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 31.03.2016 / 0004
 Replacing version dated / version: 21.08.2015 / 0003
 Valid from: 31.03.2016
 PDF print date: 01.04.2016
 Coolant Ready Mix RAF12 5 L
 Art.: 8810

| Ethanediol | | | | | | |
|------------------------------------|----------|-------|-------|-------------|--|--|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | LD50 | >7712 | mg/kg | Rat | IUCLID Chem. Data Sheet (ESIS) | Does not conform with EU classification. |
| Acute toxicity, by dermal route: | LD50 | 9530 | mg/kg | Rabbit | | |
| Skin corrosion/irritation: | | | | Rabbit | | Slightly irritant |
| Serious eye damage/irritation: | | | | Rabbit | | Slightly irritant |
| Respiratory or skin sensitisation: | | | | Human being | (Patch-Test) | Negative |
| Germ cell mutagenicity: | | | | | OECD 471 (Bacterial Reverse Mutation Test) | Negative |
| Symptoms: | | | | | | ataxia, breathing difficulties, unconsciousness, cramps, fatigue |

| Sodium-2-ethylhexanoate | | | | | | |
|-------------------------|----------|-------|------|----------|-------------|---|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Symptoms: | | | | | | gastrointestinal disturbances, mucous membrane irritation |

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

| Coolant Ready Mix RAF12 5 L Art.: 8810 | | | | | | | |
|---|----------|------|-------|------|----------|-------------|--|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | | | | | | | n.d.a. |
| 12.1. Toxicity to daphnia: | | | | | | | n.d.a. |
| 12.1. Toxicity to algae: | | | | | | | n.d.a. |
| 12.2. Persistence and degradability: | | | | | | | Readily biodegradable (Analogous conclusion) |
| 12.3. Bioaccumulative potential: | | | | | | | n.d.a. |
| 12.4. Mobility in soil: | | | | | | | n.d.a. |
| 12.5. Results of PBT and vPvB assessment | | | | | | | n.d.a. |
| 12.6. Other adverse effects: | | | | | | | n.d.a. |

| Ethanediol | | | | | | | |
|--------------------------------------|----------|------|-----------|------|---------------------------------|--|--------------------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | >10000 | mg/l | Pimephales promelas | IUCLID Chem. Data Sheet (ESIS) | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 41100 | mg/l | Daphnia magna | | |
| 12.1. Toxicity to algae: | EC50 | 96h | 6500-7500 | mg/l | Pseudokirchneriella subcapitata | | |
| 12.1. Toxicity to algae: | IC5 | 7d | > 10000 | mg/l | Scenedesmus quadricauda | | |
| 12.2. Persistence and degradability: | | 28d | 56 | % | | OECD 301 C (Ready Biodegradability - Modified MITI Test (I)) | |
| 12.3. Bioaccumulative potential: | Log Pow | | -1,36 | | | | Not to be expected |
| Toxicity to bacteria: | EC50 | 16h | >10000 | mg/l | Pseudomonas putida | IUCLID Chem. Data Sheet (ESIS) | |

GB

Page 8 of 11
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 31.03.2016 / 0004
 Replacing version dated / version: 21.08.2015 / 0003
 Valid from: 31.03.2016
 PDF print date: 01.04.2016
 Coolant Ready Mix RAF12 5 L
 Art.: 8810

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

16 01 14 antifreeze fluids containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

14.1. UN number: n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

Classification code: n.a.

LQ (ADR 2015): n.a.

14.5. Environmental hazards: Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

Marine Pollutant: n.a.

14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:

14.3. Transport hazard class(es): n.a.

14.4. Packing group: n.a.

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

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

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

For classification and labelling see Section 2.

Observe restrictions:

Observe youth employment law (German regulation).

Comply with trade association/occupational health regulations.

Observe law on protection of expectant mothers (German regulation).

(GB)

Page 9 of 11
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 31.03.2016 / 0004
 Replacing version dated / version: 21.08.2015 / 0003
 Valid from: 31.03.2016
 PDF print date: 01.04.2016
 Coolant Ready Mix RAF12 5 L
 Art.: 8810

Directive 2010/75/EU (VOC): 0 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 2, 3, 11, 12
 These details refer to the product as it is delivered.
 Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used |
|---|--|
| STOT RE 2, H373 | Classification according to calculation procedure. |

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H361d Suspected of damaging the unborn child.
 H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
 H302 Harmful if swallowed.

STOT RE — Specific target organ toxicity - repeated exposure
 Acute Tox. — Acute toxicity - oral
 Repr. — Reproductive toxicity

Any abbreviations and acronyms used in this document:

AC Article Categories
 acc., acc. to according, according to
 ACGIH American Conference of Governmental Industrial Hygienists
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
 AOEL Acceptable Operator Exposure Level
 AOX Adsorbable organic halogen compounds
 approx. approximately
 Art., Art. no. Article number
 ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
 BCF Bioconcentration factor
 BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
 BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
 BMGV Biological monitoring guidance value (EH40, UK)
 BOD Biochemical oxygen demand
 BSEF Bromine Science and Environmental Forum
 bw body weight
 CAS Chemical Abstracts Service
 CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
 CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
 CIPAC Collaborative International Pesticides Analytical Council
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
 CMR carcinogenic, mutagenic, reproductive toxic
 COD Chemical oxygen demand
 CTFA Cosmetic, Toiletry, and Fragrance Association
 DMEL Derived Minimum Effect Level
 DNEL Derived No Effect Level

Page 10 of 11
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 31.03.2016 / 0004
 Replacing version dated / version: 21.08.2015 / 0003
 Valid from: 31.03.2016
 PDF print date: 01.04.2016
 Coolant Ready Mix RAF12 5 L
 Art.: 8810

DOC Dissolved organic carbon
 DT50 Dwell Time - 50% reduction of start concentration
 DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
 dw dry weight
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
 EC European Community
 ECHA European Chemicals Agency
 EEA European Economic Area
 EEC European Economic Community
 EINECS European Inventory of Existing Commercial Chemical Substances
 ELINCS European List of Notified Chemical Substances
 EN European Norms
 EPA United States Environmental Protection Agency (United States of America)
 ERC Environmental Release Categories
 ES Exposure scenario
 etc. et cetera
 EU European Union
 EWC European Waste Catalogue
 Fax. Fax number
 gen. general
 GHS Globally Harmonized System of Classification and Labelling of Chemicals
 GWP Global warming potential
 HET-CAM Hen's Egg Test - Chorionallantoic Membrane
 HGWP Halocarbon Global Warming Potential
 IARC International Agency for Research on Cancer
 IATA International Air Transport Association
 IBC Intermediate Bulk Container
 IBC (Code) International Bulk Chemical (Code)
 IC Inhibitory concentration
 IMDG-code International Maritime Code for Dangerous Goods
 incl. including, inclusive
 IUCLID International Uniform Chemical Information Database
 LC lethal concentration
 LC50 lethal concentration 50 percent kill
 LCLo lowest published lethal concentration
 LD Lethal Dose of a chemical
 LD50 Lethal Dose, 50% kill
 LDLo Lethal Dose Low
 LOAEL Lowest Observed Adverse Effect Level
 LOEC Lowest Observed Effect Concentration
 LOEL Lowest Observed Effect Level
 LQ Limited Quantities
 MARPOL International Convention for the Prevention of Marine Pollution from Ships
 n.a. not applicable
 n.av. not available
 n.c. not checked
 n.d.a. no data available
 NIOSH National Institute of Occupational Safety and Health (United States of America)
 NOAEC No Observed Adverse Effective Concentration
 NOAEL No Observed Adverse Effect Level
 NOEC No Observed Effect Concentration
 NOEL No Observed Effect Level
 ODP Ozone Depletion Potential
 OECD Organisation for Economic Co-operation and Development
 org. organic
 PAH polycyclic aromatic hydrocarbon
 PBT persistent, bioaccumulative and toxic
 PC Chemical product category
 PE Polyethylene
 PNEC Predicted No Effect Concentration
 POCP Photochemical ozone creation potential
 ppm parts per million
 PROC Process category
 PTFE Polytetrafluorethylene

Page 11 of 11
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 31.03.2016 / 0004
Replacing version dated / version: 21.08.2015 / 0003
Valid from: 31.03.2016
PDF print date: 01.04.2016
Coolant Ready Mix RAF12 5 L
Art.: 8810

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship
SU Sector of use
SVHC Substances of Very High Concern
Tel. Telephone
ThOD Theoretical oxygen demand
TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).
WHO World Health Organization
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.

These statements were made by:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.