

SAFETY DATA SHEET

Version #: 03
Issue date: 06-September-2016
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Supersedes date: 22-October-2018

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

1.1. Product identifier

Trade name or designation of the mixture Havoline XLC +B1 (RL04)

Registration number -

UFI: XA3J-2VG8-K20F-E7GJ

Synonyms None.

Product code 1002386

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

Identified uses Antifreeze / Coolant.

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Supplier ARTECO NV
Metropoolstraat 25
B-2900 Schoten (Antwerpen)
Belgium

e-mail customerservice@arteco-coolants.com

Product information Technical Information: +32 (0) 9 397 06 00

1.4. Emergency telephone number

Transportation emergency Europe: +44 20 35147487 (24hr) Access code: 335087

Health Emergency Europe: +44 20 35147487 (24hr) Access code: 335087

General in EU 112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

| | |
|--|---------------------|
| Acute toxicity, oral | Category 4 |
| Reproductive toxicity (the unborn child) | Category 2 |
| Specific target organ toxicity - repeated exposure | Category 2 (kidney) |

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

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Ethylene glycol, Sodium 2-ethylhexanoate

Hazard pictograms



Signal word Warning

Hazard statements

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

Precautionary statements

Prevention

| | |
|------|--|
| P102 | Keep out of reach of children. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |

Response

| | |
|-------------|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTRE/doctor. |

Storage

| | |
|------|------------------|
| P405 | Store locked up. |
|------|------------------|

Disposal

| | |
|------|---|
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |
|------|---|

Supplemental information on the label

None.

2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

The mixture does not contain any substances having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1% by weight.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

| Chemical name | % | CAS-No. / EC No. | REACH Registration No. | Index No. | Notes |
|---|-----------|-------------------------|------------------------|-----------|-------|
| Ethylene glycol | 80 - 98 | 107-21-1 203-473-3 | 01-2119456816-28-XXXX | - | # |
| Classification: Acute Tox. 4;H302;(ATE: 1600 mg/kg bw), STOT RE 2;H373 | | | | | |
| Sodium 2-ethylhexanoate | 3 - < 5 | 19766-89-3 243-283-8 | Exempt | - | |
| Classification: Repr. 2;H361d | | | | | E |
| Methyl-1H-benzotriazole | 0,1 - < 1 | 29385-43-1 249-596-6 | 01-2119979081-35-XXXX | - | |
| Classification: Acute Tox. 4;H302;(ATE: 720 mg/kg bw), Repr. 2;H361d, Aquatic Chronic 2;H411 | | | | | |

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

ATE: Acute toxicity estimate.

Composition comments

All concentrations are in percent by weight. The full text for all H-statements is displayed in section 16.

E Exempted from registration as per Annex V of the Regulation 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

This product contains a bittering agent.

SECTION 4: First aid measures

General information

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

4.1. Description of first aid measures

| | |
|---------------------|---|
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Skin contact | Wash off with soap and water. Get medical attention if irritation develops and persists. |
| Eye contact | Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| Ingestion | Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell. |

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

Convulsions. Dizziness. Nausea, vomiting. Abdominal pain. Oedema. Prolonged exposure may cause chronic effects.

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

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards

No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media

Alcohol resistant foam. Powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition may produce smoke, oxides of carbon and lower molecular weight organic compounds whose composition have not been characterised.

5.3. Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Use water spray to reduce vapours or divert vapour cloud drift.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapour. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Antifreeze / Coolant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Poland. Maximum permissible concentrations and intensities of harmful factors in the work environment (Dz.U.Poz. 1286/2018, Annex 1)

| Components | Type | Value |
|--------------------------------|------|----------------------|
| Ethylene glycol (CAS 107-21-1) | STEL | 50 mg/m ³ |
| | TWA | 15 mg/m ³ |

| Components | Type | Value |
|--------------------------------|------|-----------|
| Ethylene glycol (CAS 107-21-1) | STEL | 104 mg/m3 |
| | | 40 ppm |
| | TWA | 52 mg/m3 |
| | | 20 ppm |

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General population

| Components | Value | Assessment factor | Notes |
|--|-------------------|-------------------|--|
| Ethylene glycol (CAS 107-21-1) | | | |
| Long-term, Local, Inhalation | 7 mg/m3 | 10 | Skin irritation/corrosion |
| Long-term, Systemic, Dermal | 53 mg/kg bw/day | 84 | Repeated dose toxicity |
| Methyl-1H-benzotriazole (CAS 29385-43-1) | | | |
| Long-term, Systemic, Dermal | 0,01 mg/kg bw/day | 3000 | developmental toxicity / teratogenicity |
| Long-term, Systemic, Inhalation | 350 µg/m3 | 750 | developmental toxicity / teratogenicity |
| Long-term, Systemic, Oral | 0,01 mg/kg bw/day | 3000 | developmental toxicity / teratogenicity |

Workers

| Components | Value | Assessment factor | Notes |
|--|------------------|-------------------|--|
| Ethylene glycol (CAS 107-21-1) | | | |
| Long-term, Local, Inhalation | 35 mg/m3 | 2 | Skin irritation/corrosion |
| Long-term, Systemic, Dermal | 106 mg/kg bw/day | 42 | Repeated dose toxicity |
| Methyl-1H-benzotriazole (CAS 29385-43-1) | | | |
| Long-term, Systemic, Dermal | 0,3 mg/kg bw/day | 300 | developmental toxicity / teratogenicity |
| Long-term, Systemic, Inhalation | 21,2 mg/m3 | 75 | developmental toxicity / teratogenicity |

Predicted no effect concentrations (PNECs)

| Components | Value | Assessment factor | Notes |
|--|-------------------------|-------------------|-------|
| Ethylene glycol (CAS 107-21-1) | | | |
| | Freshwater | 10 mg/l | 10 |
| | Marine water | 1 mg/l | 100 |
| | Sediment (freshwater) | 37 mg/kg | |
| | Sediment (marine water) | 3,7 mg/kg | |
| | Soil | 1,53 mg/kg | |
| | STP | 199,5 mg/l | 10 |
| Methyl-1H-benzotriazole (CAS 29385-43-1) | | | |
| | Freshwater | 0,008 mg/l | 50 |
| | Marine water | 20 µg/l | 500 |
| | Sediment (freshwater) | 0,117 mg/l | 10 |
| | Sediment (marine water) | 0,292 mg/l | 10 |
| | Soil | 18,7 µg/kg | 10 |
| | STP | 39,4 mg/l | 10 |

8.2. Exposure controls

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Chemical respirator with organic vapour cartridge and full facepiece. Eye protection should meet standard EN 166.

Skin protection

| | |
|--|---|
| - Hand protection | Wear appropriate chemical resistant gloves. Wear suitable gloves tested to EN374. Full contact: Use gloves classified protection index 6 with breakthrough time of 480 minutes. Minimum glove thickness 0.38 mm. Neoprene, butyl rubber, nitrile or Viton gloves are recommended. Suitable gloves can be recommended by the glove supplier. |
| - Other | Wash hands thoroughly after handling. Use of an impervious apron is recommended. |
| Respiratory protection | Chemical respirator with organic vapour cartridge and full facepiece. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| Hygiene measures | Observe any medical surveillance requirements. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |
| Environmental exposure controls | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | Liquid. |
| Form | Clear liquid. |
| Colour | Light red. |
| Odour | Mild. |
| Odour threshold | Not determined. |
| Melting point/freezing point | Not applicable. / -18 °C (-0,4 °F) (Typical) |
| Boiling point or initial boiling point and boiling range | 175 °C (347 °F) (Typical) |
| Flammability | Will burn if involved in a fire. |
| Upper/lower flammability or explosive limits | |
| Explosive limit - lower (%) | Not determined. |
| Explosive limit – upper (%) | Not determined. |
| Flash point | 122 °C (251,6 °F) Pensky-Martens Closed Cup (Approximate) |
| Auto-ignition temperature | 398 °C (748,4 °F) (Ethylene Glycol) |
| Decomposition temperature | Not determined. |
| pH | 8,65 (20°C) (Typical) |
| Kinematic viscosity | Not determined. |
| Solubility | |
| Solubility (water) | Miscible. |
| Partition coefficient (n-octanol/water) (log value) | Not applicable, product is a mixture. |
| Vapour pressure | Not determined. |
| Density and/or relative density | |
| Density | 1,113 kg/l (20 °C) (Typical) |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Particle characteristics | |
| Particle size | Not applicable, material is a liquid. |

9.2. Other information

| | |
|--|---|
| 9.2.1. Information with regard to physical hazard classes | No relevant additional information available. |
| 9.2.2. Other safety characteristics | |
| Evaporation rate | Not determined. |
| Viscosity | Not determined. |

SECTION 10: Stability and reactivity

| | |
|---------------------------------|---|
| 10.1. Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| 10.2. Chemical stability | Material is stable under normal conditions. |

| | |
|---|--|
| 10.3. Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| 10.4. Conditions to avoid | Contact with incompatible materials. |
| 10.5. Incompatible materials | Strong acids. Strong oxidising agents. Nitrates. Peroxides. Chlorates. |
| 10.6. Hazardous decomposition products | At elevated temperatures: Ketones. Aldehydes. |

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

| | |
|---------------------|---|
| Inhalation | In high concentrations, mists/vapours may irritate throat and respiratory system and cause coughing. |
| Skin contact | Prolonged or repeated contact may dry skin and cause irritation. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Harmful if swallowed. Ingestion of ethylene glycol may result in nausea, vomiting, abdominal cramps, blindness, liver damage, irritation, reproductive effects, nerve damage, convulsions, oedema of the lung, cardiopulmonary effects (metabolic acidosis), pneumonia and kidney failure which could result in death. The single lethal dose for humans is about 100 ml. Inhalation of high levels of vapour or mists for prolonged periods of time may also result in toxic effects. |

Symptoms Convulsions. Dizziness. Nausea, vomiting. Abdominal pain. Oedema. Prolonged exposure may cause chronic effects.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Harmful if swallowed.

| Product | Species | Test Results |
|---------|---------|--------------|
|---------|---------|--------------|

Havoline XLC +B1 (RL04) (CAS -)

Acute

Oral

ATEmix

1720 mg/kg bw

| Components | Species | Test Results |
|------------|---------|--------------|
|------------|---------|--------------|

Ethylene glycol (CAS 107-21-1)

Acute

Dermal

LD50

Mouse

> 3500 mg/kg

Inhalation

Aerosol

LC50

Rat

> 2,5 mg/l, 6 Hours

Oral

LD50

Cat

1600 mg/kg

Methyl-1H-benzotriazole (CAS 29385-43-1)

Acute

Dermal

LD50

Rabbit

> 2000 mg/kg, 24 Hours

Oral

LD50

Rat

720 mg/kg

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory sensitisation Due to partial or complete lack of data the classification is not possible.

Skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Due to partial or complete lack of data the classification is not possible.

Reproductive toxicity Suspected of damaging the unborn child.

Reproductivity

Methyl-1H-benzotriazole (CAS 29385-43-1)

30 mg/kg bw/day OECD 414

Result: LOAEL

Species: Rat

| | |
|---|---|
| Specific target organ toxicity - single exposure | Based on available data, the classification criteria are not met. |
| Specific target organ toxicity - repeated exposure | May cause damage to organs (kidney) through prolonged or repeated exposure. |
| Aspiration hazard | Due to partial or complete lack of data the classification is not possible. |
| Mixture versus substance information | No information available. |

11.2. Information on other hazards

| | |
|--|---|
| Endocrine disrupting properties | This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight. |
| Other information | No data available. |

SECTION 12: Ecological information

| | |
|-----------------------|--|
| 12.1. Toxicity | Based on available data, the classification criteria are not met for hazardous to the aquatic environment. |
|-----------------------|--|

| Components | Species | | Test Results |
|--|---------|--------------------------------------|----------------------|
| Ethylene glycol (CAS 107-21-1) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Daphnia magna | > 100 mg/l, 48 Hours |
| Acute | | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 72860 mg/l, 96 hours |
| Methyl-1H-benzotriazole (CAS 29385-43-1) | | | |
| Aquatic | | | |
| Acute | | | |
| Algae | ECr50 | Pseudokirchneriella subcapitata | 75 mg/l, 72 hours |
| Crustacea | EC50 | Daphnia galeata | 8,58 mg/l, 48 hours |
| | LC50 | Arcartia tonsa | 55 mg/l, 48 hours |
| Fish | LC50 | Danio rerio | 180 mg/l, 72 hours |
| Chronic | | | |
| Crustacea | EC10 | Daphnia galeata | 0,4 mg/l, 21 days |

| | |
|--|---|
| 12.2. Persistence and degradability | Ethylene glycol: > 90% / 10 days (OECD 301A) Readily biodegradable. |
|--|---|

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

| | |
|--------------------------------|-------|
| Ethylene glycol (CAS 107-21-1) | -1,36 |
|--------------------------------|-------|

| | |
|--------------------------------------|----------------|
| Bioconcentration factor (BCF) | Not available. |
|--------------------------------------|----------------|

| | |
|-------------------------------|--------------------|
| 12.4. Mobility in soil | No data available. |
|-------------------------------|--------------------|

| | |
|---|---|
| 12.5. Results of PBT and vPvB assessment | This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. |
|---|---|

| | |
|--|--|
| 12.6. Endocrine disrupting properties | This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight. |
|--|--|

| | |
|------------------------------------|--------------------|
| 12.7. Other adverse effects | No data available. |
|------------------------------------|--------------------|

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|-------------------------------------|---|
| Residual waste | Dispose in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. |
| EU waste code | EWC: 16 01 14 |
| Disposal methods/information | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations. |

SECTION 14: Transport information**ADR**

| | |
|---|-----------------------------------|
| 14.1. UN number | Not regulated as dangerous goods. |
| 14.2. UN proper shipping name | Not regulated as dangerous goods. |
| 14.3. Transport hazard class(es) | |
| Class | Not assigned. |
| Subsidiary risk | - |
| Hazard No. (ADR) | Not assigned. |
| Tunnel restriction code | Not assigned. |
| 14.4. Packing group | Not assigned. |
| 14.5. Environmental hazards | No. |
| 14.6. Special precautions for user | Not assigned. |

RID

| | |
|---|-----------------------------------|
| 14.1. UN number | Not regulated as dangerous goods. |
| 14.2. UN proper shipping name | Not regulated as dangerous goods. |
| 14.3. Transport hazard class(es) | |
| Class | Not assigned. |
| Subsidiary risk | - |
| 14.4. Packing group | Not assigned. |
| 14.5. Environmental hazards | No. |
| 14.6. Special precautions for user | Not assigned. |

ADN

| | |
|---|-----------------------------------|
| 14.1. UN number | Not regulated as dangerous goods. |
| 14.2. UN proper shipping name | Not regulated as dangerous goods. |
| 14.3. Transport hazard class(es) | |
| Class | Not assigned. |
| Subsidiary risk | - |
| 14.4. Packing group | Not assigned. |
| 14.5. Environmental hazards | No. |
| 14.6. Special precautions for user | Not assigned. |

IATA

| | |
|---|-----------------------------------|
| 14.1. UN number | Not regulated as dangerous goods. |
| 14.2. UN proper shipping name | Not regulated as dangerous goods. |
| 14.3. Transport hazard class(es) | |
| Class | Not assigned. |
| Subsidiary risk | - |
| 14.4. Packing group | Not assigned. |
| 14.5. Environmental hazards | No. |
| 14.6. Special precautions for user | Not assigned. |

IMDG

| | |
|---|-----------------------------------|
| 14.1. UN number | Not regulated as dangerous goods. |
| 14.2. UN proper shipping name | Not regulated as dangerous goods. |
| 14.3. Transport hazard class(es) | |
| Class | Not assigned. |
| Subsidiary risk | - |
| 14.4. Packing group | Not assigned. |
| 14.5. Environmental hazards | |
| Marine pollutant | No. |
| EmS | Not assigned. |
| 14.6. Special precautions for user | Not assigned. |

14.7. Maritime transport in bulk according to IMO instruments Not established.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

All components of this product are compliant with the registration requirements of Regulation (EC) 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals, as amended.

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States), TCSI (Taiwan), NZIoC (New Zealand).

National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

Poland. Substances that could yield hazardous waste (Law on waste, DZ.U. poz. 21/2013, Annex 4)

Ethylene glycol (CAS 107-21-1)

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

TWA: Time weighted average.
STEL: Short term exposure limit.
DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration.
STP: Sewage treatment plant.
LD50: Lethal Dose, 50%.
EC50: Effective Concentration, 50%.
LC50: Lethal Concentration, 50%.
PBT: Persistent, bioaccumulative and toxic.

vPvB: Very Persistent and very Bioaccumulative.
ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
IMDG Code: International Maritime Dangerous Goods Code.
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
MARPOL: International Convention for the Prevention of Pollution from Ships.
ECHA CHEM

References

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements, which are not written out in full under sections 2 to 15

H302 Harmful if swallowed.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure by ingestion.
H411 Toxic to aquatic life with long lasting effects.
1, 2, 3, 8, 9, 11, 12, 14, 16

This SDS contains revisions in the following section(s):

Training information

Follow training instructions when handling this material.

Disclaimer

ARTECO NV cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Annex to the extended Safety Data Sheet (eSDS)

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Safe Use Information for mixture

General description of the process covered

Formulation & (re)packing of substances and mixtures

List of use descriptors

Sector(s) of Use Industrial

Name of contributing environmental scenario and corresponding ERC ERC2: Formulation into mixture

List of names of contributing scenarios and corresponding PROCs

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC4: Chemical production where opportunity for exposure arises
PROC5: Mixing or blending in batch processes
PROC8a: Transfer of substance or mixture (charging/discharging) at non dedicated-facilities
PROC8b: Transfer of substance or mixture (charging/discharging) at dedicated facilities
PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC15: Use as laboratory reagent

Operational conditions

Maximum duration PROC5, PROC8b: Avoid carrying out activities involving exposure for more than 4 hours per day.
PROC8a: Avoid carrying out activities involving exposure for more than 1 hour per day.
Other processes: Covers daily exposures up to 8 hours

Range of application / process conditions Indoor use

Air exchange rate PROC1, PROC2: Provide a basic standard of general ventilation (1 to 3 air changes per hour).
PROC8a: Local exhaust ventilation - efficiency of at least 90%. In case of insufficient ventilation, wear suitable respiratory equipment.
PROC15: Local exhaust ventilation - efficiency of at least 90%
Other processes: Provide a good standard of controlled ventilation (5 to 10 air changes per hour).

Risk management measures

Conditions and measures related to personal protection equipment (PPE), hygiene and health evaluation and the environment Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. For further specification, refer to section 8 of the SDS.



Environmental measures As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed. For the disposal of product residues and waste please refer to section 13 of the SDS.

Safe Use Information for mixture

General description of the process covered

Use at industrial sites

List of use descriptors

Sector(s) of Use

Industrial

Product categories [PC]:

PC4: Anti-freeze and de-icing products PC16: Heat transfer fluids

Name of contributing environmental scenario and corresponding ERC

ERC7: Use of functional fluid at industrial site

List of names of contributing scenarios and corresponding PROCs

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC4: Chemical production where opportunity for exposure arises
PROC8a: Transfer of substance or mixture (charging/discharging) at non dedicated-facilities
PROC8b: Transfer of substance or mixture (charging/discharging) at dedicated facilities
PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

Operational conditions

Maximum duration

PROC8a: Avoid carrying out activities involving exposure for more than 4 hours per day.
Other processes: Covers daily exposures up to 8 hours

Range of application / process conditions

Indoor use

Air exchange rate

PROC1, PROC2: Provide a basic standard of general ventilation (1 to 3 air changes per hour).
PROC3: Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
PROC8a: Local exhaust ventilation - efficiency of at least 90%. In case of insufficient ventilation, wear suitable respiratory equipment.
Other processes: Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

Risk management measures

Conditions and measures related to personal protection equipment (PPE), hygiene and health evaluation and the environment

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. For further specification, refer to section 8 of the SDS.



Environmental measures

As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed. For the disposal of product residues and waste please refer to section 13 of the SDS.

Safe Use Information for mixture

General description of the process covered

Widespread use by professional workers

List of use descriptors

Sector(s) of Use Professional

Product categories [PC]: PC4: Anti-freeze and de-icing products

Name of contributing environmental scenario and corresponding ERC ERC9a: Widespread use of functional fluid (indoor)

List of names of contributing scenarios and corresponding PROCs

PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC8a: Transfer of substance or mixture (charging/discharging) at non dedicated-facilities
PROC9: Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC20: Use of functional fluids in small devices

Operational conditions

Maximum duration PROC8a: Avoid carrying out activities involving exposure for more than 1 hour per day.
PROC9: Avoid carrying out activities involving exposure for more than 4 hours per day.
Other processes: Covers daily exposures up to 8 hours.

Range of application / process conditions Indoor use

Air exchange rate PROC1: Provide a basic standard of general ventilation (1 to 3 air changes per hour).
PROC3: Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
PROC8a: Local exhaust ventilation - efficiency of at least 90%. In case of insufficient ventilation, wear suitable respiratory equipment.
Other processes: Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

Risk management measures

Conditions and measures related to personal protection equipment (PPE), hygiene and health evaluation and the environment Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. For further specification, refer to section 8 of the SDS.



Environmental measures As no environmental hazard was identified no environmental-related exposure assessment and risk characterization was performed. For the disposal of product residues and waste please refer to section 13 of the SDS.