

SAFETY DATA SHEET

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

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|---|--|
| 1.1. Product identifier | |
| Trade name or designation of the mixture | REL-PAC® |
| Registration number | - |
| Synonyms | None. |
| Issue date | 29-August-2012 |
| Version number | 06 |
| Revision date | 14-July-2014 |
| Supersedes date | 29-August-2012 |
| 1.2. Relevant identified uses | of the substance or mixture and uses advised against |
| Identified uses | Not available. |
| Uses advised against | None known. |
| 1.3. Details of the supplier of | the safety data sheet |
| Supplier | |
| Company name | CETCO-Poland,CETCO sp zo.o.S.K.A |
| Address | Korpele 13A-Strefa |
| | 12-100 Szczytno |
| | PL |
| Telephone | General Information +48 0 89 624 7300 |
| e-mail | safety.data@amcol.com |
| Contact person | EHS Department |
| 1.4. Emergency telephone number | 0. |
| United Kingdom | 44 8 08 189 0979 |
| Europe | 1 760 476 3961 |
| | |

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 classificatior applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

| Classification | R52/53 |
|----------------|--------|
| | |

The full text for all R-phrases is displayed in section 16.

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

| Environmental hazards Hazardous to the aquatic long-term aquatic hazard | , | Category 3 | H412 - Harmful to aquatic life with long lasting effects. | |
|--|--|---|---|--|
| Hazard summary | | | | |
| Physical hazards | Not classified for | r physical hazards. | | |
| Health hazards | Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects. | | | |
| Environmental hazards | Harmful to aqua | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | | |
| Specific hazards | None known. | | | |
| Main symptoms | Not available. | | | |
| 2.2. Label elements | | | | |
| Label according to Regulation | (EC) No. 1272/2 | 2008 as amended | | |
| Hazard pictograms | None. | | | |
| Signal word | None. | | | |
| Hazard statements | | | | |

| H412 | Harmful to aquatic life with long lasting effects. | | |
|-----------------------------------|---|--|--|
| Precautionary statements | | | |
| Prevention | | | |
| P273 | Avoid release to the environment. | | |
| Response | Wash hands after handling. | | |
| Storage | Store away from incompatible materials. | | |
| Disposal | | | |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. | | |
| Supplemental label information | 50 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. | | |
| 2.3. Other hazards | None known. | | |

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

| Chemical name | | % | CAS-No. / EC No. | REACH Registration No. | INDEX No. | Notes |
|------------------------|------|-----------------|------------------|------------------------|-----------|-------|
| SODIUM CARBOXYMET | THYL | 40 - 60 | 9004-32-4 | - | - | |
| Classification: | DSD: | R52/53 | | | | |
| | CLP: | Aquatic Chronic | 3;H412 | | | |

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

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

Composition comments

Occupational Exposure Limits for constituents are listed in Section 8. The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information Not available.

| 4.1 Description of first aid ma | | | | |
|--|---|--|--|--|
| 4.1. Description of first aid me | | | | |
| Inhalation | If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical atten cough or other symptoms develop. | | | |
| Skin contact | Wash with soap and water. Get medical attention if irritation persists after washing. | | | |
| Eye contact | Flush thoroughly with water. If irritation occurs, get medical assistance. | | | |
| Ingestion | Rinse mouth thoroughly. If ingestion of a large amount does occur, seek medical attention. | | | |
| 4.2. Most important symptoms and effects, both acute and delayed | Direct contact with eyes may cause temporary irritation. | | | |
| 4.3. Indication of any immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. | | | |
| SECTION 5: Firefighting | measures | | | |
| General fire hazards | No unusual fire or explosion hazards noted. | | | |

| 5.1. Extinguishing media | |
|--|--|
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Water spray, foam, dry powder or carbon dioxide. |
| Unsuitable extinguishing media | None known. |
| 5.2. Special hazards arising from the substance or mixture | During fire, gases hazardous to health may be formed. |

| 5.3. Advice for firefighters | |
|---|--|
| Special protective equipment for firefighters | Use protective equipment appropriate for surrounding materials. |
| Special fire fighting procedures | In the event of fire, cool tanks with water spray. Cool containers exposed to flames with water until well after the fire is out. Water runoff can cause environmental damage. |

SECTION 6: Accidental release measures

| 6.1. Personal precautions, prot | ective equipment and emergency procedures |
|---|---|
| For non-emergency personnel | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Ensure adequate ventilation. For personal protection, see section 8. |
| For emergency responders | Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS. |
| 6.2. Environmental precautions | Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. |
| 6.3. Methods and material for containment and cleaning up | Large Spills: Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Clean up in accordance with all applicable regulations. 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 in original containers for re-use. |
| 6.4. Reference to other sections | For personal protection, see section 8. For waste disposal, see section 13. |
| SECTION 7: Handling and | d storage |

SECTION 7: Handling and storage

| 7.1. Precautions for safe handling | Use this product with adequate ventilation. Keep formation of airborne dusts to a minimum. Use spark-proof tools and explosion-proof equipment. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains. |
|---|--|
| 7.2. Conditions for safe storage, including any incompatibilities 7.3. Specific end use(s) | Store at room temperature in the original container. Store in original tightly closed container. Keep the container dry. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Not available. |
| 7.5. Specific end use(s) | |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| UK. EH40 Workplace Exposure Limits (WELs) | | | | |
|---|--|-------------------|--|--|
| Constituents | Туре | Value | Form | |
| INERT OR NUISANCE DUSTS (CAS SEQ250) | TWA | 4 mg/m3 | Respirable dust. | |
| | | 10 mg/m3 | Inhalable dust. | |
| Biological limit values | No biological exposure limits noted for the | ne ingredient(s). | | |
| Recommended monitoring procedures | Follow standard monitoring procedures. | | | |
| Derived no-effect level (DNEL) | Not available. | | | |
| Predicted no effect concentrations (PNECs) | Not available. | | | |
| 8.2. Exposure controls | | | | |
| Appropriate engineering controls | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates sho be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or othe engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. | | al exhaust ventilation, or other d exposure limits. If exposure | |

Individual protection measures, such as personal protective equipment

| s, such as personal protective equipment | |
|--|--|
| Personal protection equipment should be chosen according to the CEN standards and in discussi with the supplier of the personal protective equipment. | |
| Normal eye protection practices should be used. If dusty conditions exist, chemical goggles are recommended. | |
| | |
| For prolonged or repeated skin contact use suitable protective gloves. | |
| Normal work clothing (long sleeved shirts and long pants) is recommended. No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact. | |
| No specific recommendation made, but protection against nuisance dust must be used when the general level exceeds 10 mg/m3. | |
| Wear appropriate thermal protective clothing, when necessary. | |
| 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. Eye wash fountain is recommended. | |
| Contain spills and prevent releases and observe national regulations on emissions. Environmental manager must be informed of all major releases. | |
| | |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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|--|--|--|
| Appearance | Free flowing wettable powder. | |
| Physical state | Solid. | |
| Form | Powder. | |
| Colour | Off-white. | |
| Odour | None. | |
| Odour threshold | Not available. | |
| рН | 6 - 8.5 (1% solution) | |
| | 6 - 8.5 (1% solution) | |
| Melting point/freezing point | Not available. | |
| Initial boiling point and boiling range | Not available. | |
| Flash point | 93.0 °C (199.4 °F) estimated | |
| Evaporation rate | Not available. | |
| Flammability (solid, gas) | Not available. | |
| Upper/lower flammability or explosive limits | | |
| Flammability limit - lower (%) | Not available. | |
| Flammability limit - upper (%) | Not available. | |
| Vapour pressure | Not available. | |
| Vapour density | Not available. | |
| Relative density | Not available. | |
| Solubility(ies) | | |
| Solubility (water) | Not available. | |
| Solubility (other) | Not available. | |
| Partition coefficient (n-octanol/water) | Not available. | |
| Auto-ignition temperature | Not available. | |
| Decomposition temperature | Not available. | |
| Viscosity | 10 - 12 mPas (1% solution, 25 C Brookfield LV; 30 rpm) 10 - 12 mPas (1% solution, 25 C Brookfield LV; 30 rpm) | |
| Explosive properties | Not available. | |
| Oxidizing properties | Not available. | |
| 9.2. Other information | | |
| Bulk density | 300 - 900 g/cm3 300 - 900 g/cm3 | |
| Percent volatile | 0 % v/v | |

Material name: REL-PAC®

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 | Will not occur. |
| 10.4. Conditions to avoid | Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| 10.5. Incompatible materials | Strong oxidising agents. |
| 10.6. Hazardous decomposition products | At thermal decomposition temperatures, carbon monoxide and carbon dioxide. |
| | |

SECTION 11: Toxicological information

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

Information on likely routes of exposure

| Ingestion | May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure. |
|-------------------------|---|
| Inhalation | No adverse effects due to inhalation are expected. |
| Skin contact | Not available. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Symptoms | Exposure may cause temporary irritation, redness, or discomfort. |
| 11 1 Information on tox | icological effects |

11.1. Information on toxicological effects

| Components | Species | Test results |
|---------------------|-----------------------------|-------------------|
| SODIUM CARBOXYMETHY | L CELLULOSE (CAS 9004-32-4) | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | 2000.1 mg/kg |
| Inhalation | | |
| LC50 | Rat | 5800.0001 mg/l/4h |
| Oral | | |
| LD50 | Rat | 27000 mg/kg |

* Estimates for product may be based on additional component data not shown.

| · · · · | • |
|---|---|
| Skin corrosion/irritation | Due to partial or complete lack of data the classification is not possible. |
| Serious eye damage/eye irritation | Due to partial or complete lack of data the classification is not possible. |
| Respiratory sensitisation | Due to partial or complete lack of data the classification is not possible. |
| Skin sensitisation | Due to partial or complete lack of data the classification is not possible. |
| Germ cell mutagenicity | Due to partial or complete lack of data the classification is not possible. |
| Carcinogenicity | Due to partial or complete lack of data the classification is not possible. |
| Reproductive toxicity | Due to partial or complete lack of data the classification is not possible. |
| Specific target organ toxicity - single exposure | Due to partial or complete lack of data the classification is not possible. |
| Specific target organ toxicity - repeated exposure | Due to partial or complete lack of data the classification is not possible. |
| Aspiration hazard | Due to partial or complete lack of data the classification is not possible. |
| Mixture versus substance information | No information available. |
| Other information | This product has no known adverse effect on human health. |

SECTION 12: Ecological information

| 12.1. Toxicity | Harmful to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected. | | |
|--------------------------|---|---------------------------------|-------------------------------|
| Components | | Species | Test results |
| SODIUM CARBOXYMETHYL CEI | LULOSE (CAS | 9004-32-4) | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Ceriodaphnia dubia) | 46.04 - 165.37 mg/l, 48 hours |

| Components | | Species | Test results |
|--|---|--|---|
| Fish | LC50 | Crucian carp (Carassius carassius) | > 20000 mg/l, 96 hours |
| * Estimates for product may | be based on | additional component data not shown. | |
| 12.2. Persistence and degradability | No data is | No data is available on the degradability of this product. | |
| 12.3. Bioaccumulative potential | No data a | No data available. | |
| Partition coefficient n-octanol/water (log Kow) | Not availa | Not available. | |
| Bioconcentration factor (BCF) | Not availa | Not available. | |
| 12.4. Mobility in soil | No data a | No data available. | |
| 12.5. Results of PBT and vPvB assessment | Not availa | able. | |
| 12.6. Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. | | |
| SECTION 13: Disposal c | onsiderat | tions | |
| 13.1. Waste treatment metho | ds | | |
| Residual waste | | f in accordance with local regulations. Empt | ty containers or liners may retain some product posed of in a safe manner (see: Disposal |

| | instructions). |
|---------------------------------|--|
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. |
| EU waste code | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Disposal methods/information | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Special precautions | Dispose in accordance with all applicable regulations. |

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

ΙΑΤΑ

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

14.7. Transport in bulk Not available.

according to Annex II of MARPOL 73/78 and the IBC Code

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 Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended Not listed. Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 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 Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) 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

Not listed

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not listed.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Not listed.

Directive 94/33/EC on the protection of young people at work

Not listed.

| Other regulations | The product is classified and labelled in accordance with EC directives or respective national laws This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. |
|-------------------------------------|---|
| National regulations | Follow national regulation for work with chemical agents. |
| 15.2. Chemical safety assessment | No Chemical Safety Assessment has been carried out. |

SECTION 16: Other information

| List of abbreviations References Information on evaluation method leading to the classification of mixture | Not available. Not available. The classification for health and environmental hazards is derived by a combination of calculatior methods and test data, if available. |
|--|--|
| Full text of any statements or R-phrases and H-statements under Sections 2 to 15 | R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. H412 Harmful to aquatic life with long lasting effects. |
| Revision information | This document has undergone significant changes and should be reviewed in its entirety. |
| Training information | Follow training instructions when handling this material. |
| Issued by | EHS Department 2870 Forbs Avenue Hoffman Estates, IL 60192 +1-847-851-1500 |

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