


SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

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

1.1 Product identifier

| | | |
|-------------------------------|--|--|
| Product name | Sodium Perchlorate 5M; part of 'DNA Extraction Kit BACC3' | |
| Catalogue Number | RPN8512 |  |
| Product description | Not available. | |
| Product type | Liquid. | |
| Other means of identification | Not available. | |

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

Identified uses

Analytical chemistry.
Laboratory chemicals
Scientific research and development

1.3 Details of the supplier of the safety data sheet

| | | |
|--|---|--|
| Supplier | Cytiva Amersham Place Little Chalfont Buckinghamshire HP7 9NA United Kingdom +44 1494 508000 | Hours of operation 08.30 - 17.00 |
| Person who prepared the SDS : sds_author@cytiva.com | | |

| | | |
|---------------|--|--|
| Europe | Cytiva Germany/Europe Munzinger Str. 5 79111 Freiburg Germany t: +49 (0)761 4543 0 | 1.4 Emergency telephone number +49 (0)761 4543 0 |
|---------------|--|--|

National advisory body/Poison Centre

| | |
|---------------|---|
| Europe | https://syntecshop.com/wp-content/uploads/Emergency-Phone-numbers-EU.pdf |
|---------------|---|

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Ox. Liq. 2, H272
Acute Tox. 4, H302
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity 62.5 percent of the mixture consists of component(s) of unknown acute dermal toxicity
62.5 percent of the mixture consists of component(s) of unknown acute inhalation toxicity

Ingredients of unknown ecotoxicity Not applicable.

See Section 16 for the full text of the H statements declared above.

2.2 Label elements

Hazard pictograms



Signal word

Danger

Hazard statements

May intensify fire; oxidiser.
Harmful if swallowed.
Harmful to aquatic life with long lasting effects.

Precautionary statements

General

Not applicable.

Prevention

Wear protective gloves. Wear eye or face protection. Keep away from heat. - No smoking. Keep away from clothing, incompatible materials and combustible materials. Avoid release to the environment.

Response

IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.

Storage

Not applicable.

Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

Not applicable.

Tactile warning of danger

Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures Mixture

| Product/ingredient name | Identifiers | % | Classification Regulation (EC) No. 1272/2008 [CLP] | Type |
|-------------------------|--|---------|--|------|
| sodium perchlorate | REACH #: 01-2119540521-50 EC: 231-511-9 CAS: 7601-89-0 Index: 017-010-00-6 | 50 - 75 | Ox. Sol. 1, H271 Acute Tox. 4, H302 ATE [Oral] = 500 mg/kg See Section 16 for the full text of the H statements declared above. | [1] |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a physical, health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.



SECTION 4: First aid measures

4.1 Description of first aid measures

| | |
|-----------------------------------|--|
| Eye contact | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. |
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | Rinse immediately contaminated clothing and skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Protection of first-aiders | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

| | |
|---------------------|-------------------|
| Eye contact | No specific data. |
| Inhalation | No specific data. |
| Skin contact | No specific data. |
| Ingestion | No specific data. |

4.3 Indication of any immediate medical attention and special treatment needed

| | |
|----------------------------|---|
| Notes to physician | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | No specific treatment. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

| | |
|-------------------------------------|---|
| Suitable extinguishing media | Use an extinguishing agent suitable for the surrounding fire. |
|-------------------------------------|---|

| | |
|---------------------------------------|-------------|
| Unsuitable extinguishing media | None known. |
|---------------------------------------|-------------|

5.2 Special hazards arising from the substance or mixture

| | |
|--|---|
| Hazards from the substance or mixture | Oxidising material. May intensify fire. In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous combustion products | Decomposition products may include the following materials: halogenated compounds metal oxide/oxides |

5.3 Advice for firefighters

| | |
|---|---|
| Special precautions for fire-fighters | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. |
| Special protective equipment for fire-fighters | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |



SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

| | |
|-----------------------------|---|
| For non-emergency personnel | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and material for containment and cleaning up

| | |
|-------------|--|
| Small spill | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| Large spill | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. |

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

| | |
|--|--|
| Protective measures | Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from clothing, incompatible materials and combustible materials. Keep away from heat. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| Advice on general occupational hygiene | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Separate from reducing agents and combustible materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

| Category | Notification and MAPP threshold | Safety report threshold |
|----------|---------------------------------|-------------------------|
| P8 | 50 | 200 |

7.3 Specific end use(s)

| | |
|--------------------------------------|---|
| Recommendations | Analytical chemistry. Laboratory chemicals Research and Development |
| Industrial sector specific solutions | Not available. |

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario (s).

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name

sodium perchlorate

Result

DNEL - General population - Long term - Oral

0.02 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Inhalation

0.28 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Dermal

2.16 mg/kg bw/day

Effects: Systemic

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

| | |
|--|----------------|
| Physical state | Liquid. |
| Colour | Colourless. |
| Odour | Odourless. |
| Odour threshold | Not available. |
| Melting point/freezing point | Not available. |
| Boiling point or initial boiling point and boiling range | Not available. |
| Flammability | Not available. |
| Lower and upper explosion limit | Not available. |

| | |
|---------------------------|-----------------|
| Flash point | Not applicable. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |

pH 8 [Conc. (% w/w): 100%]

Viscosity Not available.

Solubility

| Media | Result |
|------------|----------------|
| cold water | Easily soluble |
| hot water | Easily soluble |

Solubility in water Not available.

Partition coefficient: n-octanol/water Not applicable.

Vapour pressure Not available.

| Ingredient name | Vapour Pressure at 20°C | | | Vapour pressure at 50°C | | |
|-----------------|-------------------------|-----|--------|-------------------------|-----|--------|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| water | 17.5 | 2.3 | | | | |

Relative density Not available.

Relative vapour density Not available.

Particle characteristics

Median particle size Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Burning time Not applicable.

Burning rate Not applicable.

Explosive properties Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and combustible materials.

Oxidising properties Not available.

9.2.2 Other safety characteristics

Evaporation rate Not available.

Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability The product is stable.

10.3 Possibility of hazardous reactions Hazardous reactions or instability may occur under certain conditions of storage or use.
Conditions may include the following:
contact with combustible materials
Reactions may include the following:
risk of causing or intensifying fire

10.4 Conditions to avoid Drying on clothing or other combustible materials may cause fire.

10.5 Incompatible materials Reactive or incompatible with the following materials:
combustible materials
reducing materials



10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

| Product/ingredient name | Result |
|-------------------------|--|
| sodium perchlorate | Rat - Oral - LD50 2100 mg/kg <u>Toxic effects:</u> Behavioral - Excitement Lung, Thorax, or Respiration - Dyspnea Changes in Chemistry or Temperature - Body temperature decrease |

Conclusion/Summary [Product] Not available.

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Sodium Perchlorate, 5 M; part of 'DNA Extraction Kit BACC3' | 800 | N/A | N/A | N/A | N/A |
| sodium perchlorate | 500 | N/A | N/A | N/A | N/A |

Skin corrosion/irritation

Not available.

Conclusion/Summary [Product] Not available.

Serious eye damage/eye irritation

Not available.

Conclusion/Summary [Product] Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] Not available.

Respiratory

Conclusion/Summary [Product] Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

| | |
|--------------|---|
| Inhalation | No known significant effects or critical hazards. |
| Ingestion | Harmful if swallowed. |
| Skin contact | May cause skin irritation. |
| Eye contact | May cause eye irritation. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|--------------|-------------------|
| Inhalation | No specific data. |
| Ingestion | No specific data. |
| Skin contact | No specific data. |
| Eye contact | No specific data. |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] Not available.

| | |
|-----------------------|---|
| General | No known significant effects or critical hazards. |
| Carcinogenicity | No known significant effects or critical hazards. |
| Mutagenicity | No known significant effects or critical hazards. |
| Reproductive toxicity | No known significant effects or critical hazards. |

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product]

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name

sodium perchlorate

Result

Chronic - NOEC - Fresh water

Fish - Eastern mosquitofish - *Gambusia holbrooki* - Adult
7.31 mg/l [8 weeks]
Effect: Reproduction

Chronic - EC10 - Fresh water

OECD
Daphnia - Water flea - *Daphnia magna* - Neonate
Age: <24 hours
104.23 mg/l [21 days]
Effect: Reproduction

Acute - LC50 - Fresh water

US EPA, ASTM
Crustaceans - Water flea - *Ceriodaphnia dubia* - Neonate
Age: <8 hours



64.77235 mg/l [48 hours]
Effect: Mortality

Acute - LC50 - Fresh water
US EPA, ASTM
Fish - Fathead minnow - *Pimephales promelas* - Larvae
Age: <24 hours
397 mg/l [96 hours]
Effect: Mortality

Conclusion/Summary [Product] Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|--------------|-----------|
| sodium perchlorate | - | 0.06 to 0.14 | Low |

12.4 Mobility in soil

Soil/water partition coefficient

Not available.

Results of PMT and vPvM assessment

| Product/ingredient name | PMT | P | M | T | vPvM | vP | vM |
|-------------------------|---|----|----|----|------|----|----|
| sodium perchlorate | No | No | No | No | No | No | No |
| Mobility | Not available. | | | | | | |
| Conclusion/Summary | The product does not meet the criteria to be considered as a PMT or vPvM. | | | | | | |

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

| Product/ingredient name | PBT | P | B | T | vPvB | vP | vB |
|-------------------------|-----|----|----|----|------|----|----|
| sodium perchlorate | No | No | No | No | No | No | No |

Regulation (EC) No. 1272/2008 [CLP]

| Product/ingredient name | PBT | P | B | T | vPvB | vP | vB |
|-------------------------|-----|----|----|----|------|----|----|
| sodium perchlorate | No | No | No | No | No | No | No |

Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP] The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

Not applicable.

Conclusion/Summary [Product] The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

| | |
|---------------------|---|
| Methods of disposal | The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. |
| Hazardous waste | The classification of the product may meet the criteria for a hazardous waste. |





Packaging

| | |
|---------------------|--|
| Methods of disposal | The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. |
|---------------------|--|



| | |
|---------------------|---|
| Special precautions | This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. |
|---------------------|---|

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---------------------------------|---|---|---|---|
| 14.1 UN number | UN3211 | UN3211 | UN3211 | UN3211 |
| 14.2 UN proper shipping name | PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. (5M Sodium perchlorate solution) (sodium perchlorate) | PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. (5M Sodium perchlorate solution) (sodium perchlorate) | PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. (5M Sodium perchlorate solution) (sodium perchlorate) | PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S. (5M Sodium perchlorate solution) (sodium perchlorate) |
| 14.3 Transport hazard class(es) | 5.1  | 5.1  | 5.1  | 5.1  |
| 14.4 Packing group | II | II | II | II |
| 14.5 Environmental hazards | No. | Yes. | No. | No. |
| Additional information | - | - | - | - |

| | |
|---|---|
| 14.6 Special precautions for user | Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. |
| 14.7 Transport in bulk according to IMO instruments | Not available. |

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

| Product/ingredient name | % | Designation [Usage] |
|---|-----|---------------------|
| Sodium Perchlorate, 5 M; part of 'DNA Extraction Kit BACC3' | ≥90 | 3 |

Labelling Not applicable.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air Not listed

Industrial emissions (integrated pollution prevention and control) - Water Not listed

Explosive precursors Acquisition, introduction, possession or use of this product by the general public is prohibited by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)



Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P8

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

| | |
|--|---|
| United States | All components are active or exempted. |
| Canada inventory | All components are listed or exempted. |
| China | All components are listed or exempted. |
| Japan | Japan inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): Not determined. |
| 15.2 Chemical safety assessment | This product contains substances for which Chemical Safety Assessments are still required. |

SECTION 16: Other information

 Indicates information that has changed from previously issued version.

| | |
|-----------------------------------|---|
| Abbreviations and acronyms | ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative |
|-----------------------------------|---|

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|---|---|
| Ox. Liq. 2, H272 Acute Tox. 4, H302 Aquatic Chronic 3, H412 | Expert judgment Calculation method Calculation method |

| | |
|---|--|
| Full text of abbreviated H statements | H271 May cause fire or explosion; strong oxidiser. H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H412 Harmful to aquatic life with long lasting effects. |
| Full text of classifications [CLP/GHS] | Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4 Aquatic Chronic 3, H412 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 Ox. Liq. 2, H272 OXIDISING LIQUIDS - Category 2 Ox. Sol. 1, H271 OXIDISING SOLIDS - Category 1 |
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