

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

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

1.1 Product identifier

Product name **Ni²⁺ solution; part of 'NTA Reagent Kit'**

Catalogue Number **28995043**



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
☒ Consumer use

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

United Kingdom (UK)

Cytiva UK
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA
t: 0870 606 1921

1.4 Emergency telephone number

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Call Collect).

National advisory body/Poison Centre

United Kingdom (UK)

Health professionals should contact the National Poisons Information Service (NPIS) by telephone, or use TOXBASE www.toxbase.org.

NPIS <http://www.npis.org/> advise that others seeking specific information on poisons should contact:
In England and Wales: NHS Direct - 0845 4647 or 111
In Scotland: NHS 24 - 08454 24 24 24
In N Ireland: Contact your local GP or pharmacist during normal hours; click here (www.gpoutofhours.hscni.net/) for GP services Out-of-Hours.



SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definitionMixture

Classification according to UK CLP/GHS

Skin Sens. 1, H317

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

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

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal wordWarning

Hazard statementsMay cause an allergic skin reaction.

Precautionary statements

GeneralNot applicable.

PreventionWear protective gloves. Avoid breathing vapour.

Response⚠ ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.

StorageNot applicable.

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

Supplemental label elementsNot applicable.

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

Special packaging requirements

Containers to be fitted with child-resistant fasteningsNot applicable.

Tactile warning of dangerNot 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 classificationNone known.

SECTION 3: Composition/information on ingredients

3.2 MixturesMixture

| Product/ingredient name | Identifiers | % | Classification | Type |
|-----------------------------------|--|------|--|---------|
| Nickel(III) chloride, hexahydrate | EC: 231-743-0 CAS: 7791-20-0 Index: 028-011-00-6 | <0.1 | Acute Tox. 3, H301 Acute Tox. 3, H331 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1A, H350i Repr. 1B, H360D STOT RE 1, H372 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) | [1] [2] |

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

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

[2] Substance with a workplace exposure limit

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 if irritation occurs. |
| 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 | Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | Wash out mouth with water. Remove dentures if any. 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 adverse health effects persist or are severe. 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

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 | Adverse symptoms may include the following: irritation redness |
| 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 In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products No specific data.

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.



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 British standard BS 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 spilled material. 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 spilled 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).

6.3 Methods and material for containment and cleaning up**Small spill**

Stop leak if without risk. Move containers from spill area. Absorb with an inert 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. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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.

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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 between the following temperatures: 2 to 8°C (35.6 to 46.4°F). 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. 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. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)**Recommendations**

Analytical chemistry. Laboratory chemicals. Scientific research and development.

Industrial sector specific solutions

Not available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits****Product/ingredient name**

Nickel(III) chloride, hexahydrate

Exposure limit values

EH40/2005 WELs (United Kingdom (UK), 1/2020) [nickel inorganic compounds, water-soluble (except nickel tetracarbonyl)] Carc. Absorbed through skin, Inhalation sensitiser.
TWA 8 hours: 0.1 mg/m³ (as Ni).

Biological exposure indices

No exposure indices known.



Recommended monitoring procedures

Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS 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

Not available.

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. Contaminated work clothing should not be allowed out of the workplace. 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

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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. |
| pH | 6 to 8 [Conc. (% w/w): 100%] |
| Melting point/freezing point | 0°C |
| Initial boiling point and boiling range | 100°C |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | Not available. |
| Flash point | Not applicable. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |



| | | | | | | |
|---|--|-----|--------|-------------------------|-----|--------|
| Viscosity | Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): Not available. | | | | | |
| Solubility(ies) | | | | | | |
| Media | Result | | | | | |
| cold 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 | | | | |
| Evaporation rate | Not available. | | | | | |
| Relative density | Not available. | | | | | |
| Vapour density | Not available. | | | | | |
| Explosive properties | Not available. | | | | | |
| Oxidising properties | Not available. | | | | | |
| Particle characteristics | | | | | | |
| Median particle size | Not applicable. | | | | | |
| 9.2 Other information | | | | | | |
| Not available. | | | | | | |
| Burning time | Not applicable. | | | | | |
| Burning rate | Not applicable. | | | | | |
| Solubility in water | Not available. | | | | | |

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 | Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | No specific data. |
| 10.5 Incompatible materials | No specific data. |
| 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

| | | | | | |
|-----------------------------------|---|--|--|--|--|
| Acute toxicity | | | | | |
| Product/ingredient name | Result | | | | |
| Nickel(III) chloride, hexahydrate | Rat - Oral - LD50 105 mg/kg Toxic effects: Olfaction - Other changes Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea | | | | |
| 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) |
| Nickel(III) chloride, hexahydrate | 105 | N/A | N/A | 3 | N/A |

| | | | | | |
|---|--|--|--|--|--|
| <u>Skin corrosion/irritation</u> | | | | | |
| 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)

| Product/ingredient name | Result |
|-----------------------------------|-----------------|
| Nickel(III) chloride, hexahydrate | STOT RE 1, H372 |

Aspiration hazard

Not available.

Information on likely routes of exposure Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

| | |
|--------------|---|
| Inhalation | No known significant effects or critical hazards. |
| Ingestion | No known significant effects or critical hazards. |
| Skin contact | May cause an allergic skin reaction. |
| Eye contact | No known significant effects or critical hazards. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|------------|-------------------|
| Inhalation | No specific data. |
| Ingestion | No specific data. |

| | |
|--|---|
| Skin contact | Adverse symptoms may include the following: irritation redness |
| Eye contact | No specific data. |
| <u>Delayed and immediate effects as well as chronic effects from short and long-term exposure</u> | |
| <u>Short term exposure</u> | |
| Potential immediate effects | Not available. |
| Potential delayed effects | Not available. |
| <u>Long term exposure</u> | |
| Potential immediate effects | Not available. |
| Potential delayed effects | Not available. |
| <u>Potential chronic health effects</u> | |
| Not available. | |
| Conclusion/Summary [Product] | Not available. |
| General | Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
| Carcinogenicity | No known significant effects or critical hazards. |
| Mutagenicity | No known significant effects or critical hazards. |
| Reproductive toxicity | <input checked="" type="checkbox"/> No known significant effects or critical hazards. |
| Other information | Not available. |

SECTION 12: Ecological information

12.1 Toxicity

Not available.

Conclusion/Summary [Product] Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient Not available.

Mobility Not available.

12.5 Results of PBT and vPvB assessment

| | | | | | | | |
|---|----|----|----|----|----|----|----|
| <input checked="" type="checkbox"/> Nickel(III) chloride, hexahydrate | No | No | No | No | No | No | No |
|---|----|----|----|----|----|----|----|

12.6 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 | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | - | - | - | - |
| 14.3 Transport hazard class(es) | - | - | - | - |
| 14.4 Packing group | - | - | - | - |
| 14.5 Environmental hazards | No. | No. | 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

UK (GB)/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.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not 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] |
|---|-----|---------------------|
| Ni2plus solution; part of 'NTA Reagent Kit' | ≥90 | 3 |

Labelling Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

| Product/ingredient name | List name | Name on list | Classification | Notes |
|-----------------------------------|----------------|---|----------------|-------|
| Nickel(III) chloride, hexahydrate | EH40/2005 WELs | nickel inorganic compounds, water-soluble (except nickel tetracarbonyl) | Carc | - |

EU regulations

Industrial emissions
(integrated pollution
prevention and control) - Air

Not listed

Industrial emissions
(integrated pollution
prevention and control) -
Water

Not listed

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

Canada inventory

China

Japan

All components are active or exempted.

All components are listed or exempted.


All components are listed or exempted.

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
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

| Classification | | Justification |
|---------------------------------------|-------------------|--|
| Skin Sens. 1, H317 | | Calculation method |
| Full text of abbreviated H statements | H301 | Toxic if swallowed. |
| | H315 | Causes skin irritation. |
| | H317 | May cause an allergic skin reaction. |
| | H331 | Toxic if inhaled. |
| | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| | H341 | Suspected of causing genetic defects. |
| | H350i | May cause cancer by inhalation. |
| | H360D | May damage the unborn child. |
| | H372 | Causes damage to organs through prolonged or repeated exposure. |
| | H400 | Very toxic to aquatic life. |
| | H410 | Very toxic to aquatic life with long lasting effects. |
| Full text of classifications | Acute Tox. 3 | ACUTE TOXICITY - Category 3 |
| | Aquatic Acute 1 | SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 |
| | Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 |
| | Carc. 1A | CARCINOGENICITY - Category 1A |
| | Muta. 2 | GERM CELL MUTAGENICITY - Category 2 |
| | Repr. 1B | REPRODUCTIVE TOXICITY - Category 1B |
| | Resp. Sens. 1 | RESPIRATORY SENSITISATION - Category 1 |
| | Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| | Skin Sens. 1 | SKIN SENSITISATION - Category 1 |
| | STOT RE 1 | SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - |

| | |
|---------------------------------|-------------------|
| Category 1 | |
| Date of printing | 08 September 2025 |
| Date of issue/ Date of revision | 08 September 2025 |
| Date of previous issue | 18 October 2023 |
| Version | 7 |

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

