## Be Right ${ }^{\text {m" }}$

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

| Product Code(s) | 2672046 |
| :---: | :---: |
| Product Name | TN (Total Nitrogen) Reagent B |
| Unique Formula Identifier (UFI) | AV1Y-C790-V30D-8FFT |
| Molecular weight | Not applicable |

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

Recommended Use Laboratory Use. Determination of nitrate.
Uses advised against Consumer use

### 1.3. Details of the supplier of the safety data sheet

## Supplier

HACH UK
Laser House
Ground Floor, Suite B
Waterfront Quay, Salford Quays
GB - Manchester, M50 3XW
Tel. +44 (0) 1618721487
info-uk@hach.com
HACH Ireland
Unit 34 GB Business Park
Little Island
IRL-Co. Cork
T45 H681
Tel. +353 (0)146 02522
info-ie@hach.com

### 1.4. Emergency telephone number

UK: Poison Control Center Mainz: Tel: +49 (0) 6131 19240-24 hour emergency service
IE: National Poisons Information Centre (NPIC) 018092566 (24/7)

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

| Acute toxicity - Oral | Category 4-(H302) |
| :--- | :--- |
| Serious eye damage/eye irritation | Category 2-(H319) |
| Respiratory sensitisation | Category 1-(H334) |


| Specific target organ toxicity - single exposure | Category 1-(H370) |
| :--- | :--- |
| Specific target organ toxicity - repeated exposure | Category 1-(H372) |

### 2.2. Label elements

Contains Quartz, Sodium metabisulfite


## Signal word

Danger

## Hazard statements

H302 - Harmful if swallowed
H319-Causes serious eye irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H370 - Causes damage to organs
H372 - Causes damage to organs through prolonged or repeated exposure
Precautionary Statements - EU ( $(28,1272 / 2008)$
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves and eye/face protection
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P304 + P341-IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for
breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P314-Get medical advice/attention if you feel unwell
P330 - Rinse mouth
P337 + P313 - If eye irritation persists: Get medical advice/attention
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

### 2.3. Other hazards

Causes mild skin irritation.

## PBT \& vPvB

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT)
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Not applicable

### 3.2 Mixtures

| Chemical name | CAS No. <br> EC No. <br> Index No. | Weight-\% | Classification <br> according to <br> Regulation (EC) No. <br> 1272/2008 [CLP] | Specific <br> concentration limit <br> (SCL) | M-Factor | M-Factor <br> (long-term) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quartz | $14808-60-7$ <br> $238-878-4$ | $60-70 \%$ | Acute Tox. 4-H302 <br> Eye Irrit. 2 - H319 <br> STOT SE 1-H370 <br> STOT RE 1-H372 | - | - | - |
| Sodium metabisulfite | $7681-57-4$ <br> $(016-063-00-2)$ <br> $231-673-0$ <br> $016-063-00-2$ | $1-5 \%$ | Acute Tox. 4-H302 <br> Skin Irrit. 2-H315 <br> Eye Dam. 1-H318 <br> Resp. Sens. 1-H334 <br> STOT SE 3-H335 <br> Aquatic Chronic 3- <br> H412 | - | - | - |

## Full text of H- and EUH-phrases: see section 16

## Acute Toxicity Estimate No information available

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 - 4 <br> hour - dust/mist - <br> mg/L | nhalation LC50 - 4 <br> hour - vapour - <br> mg/L | Inhalation LC50 - 4 <br> hour - gas - ppm |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quartz <br> $14808-60-7$ | $500 \mathrm{mg} / \mathrm{kg}$ | None reported | None reported | None reported | None reported |
| Sodium metabisulfite <br> $7681-57-4$ | $500 \mathrm{mg} / \mathrm{kg}$ | $>2000 \mathrm{mg} / \mathrm{kg}$ | $>5.5 \mathrm{mg} / \mathrm{L}$ | None reported | None reported |

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

## General advice

## Inhalation

Eye contact

## Skin contact

## Ingestion

## Self-protection of the first aider

Take off contaminated clothing and shoes immediately. Show this safety data sheet to the doctor in attendance.

May cause allergic respiratory reaction. Artificial respiration and/or oxygen may be necessary. Remove to fresh air. Get immediate medical attention.

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a doctor. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Wash with soap and water. May cause an allergic skin reaction. Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a doctor.

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. May produce an allergic reaction. Get immediate medical attention.

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information.

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

## Symptoms

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives. Burning sensation.

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

Note to doctors
May cause sensitisation in susceptible persons. Treat symptomatically.

## Section 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

Suitable Extinguishing Media

Unsuitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water. Dry chemical, CO2 or water spray.

No information available.
5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the Product is or contains a sensitiser. May cause sensitisation by inhalation and skin contact. chemical

Hazardous combustion products carbon monoxide, carbon dioxide. nitrogen oxides. Sulphur oxides. Sodium oxides.

### 5.3. Advice for firefighters

Special protective equipment and
precautions for fire-fighters
Additional information

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## Section 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

| Personal precautions | Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| :---: | :---: |
| For emergency responders | Use personal protection recommended in Section 8. |
| 6.2. Environmental precautions |  |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. |
| 6.3. Methods and material for containment and cleaning up |  |
| Methods for containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Take up mechanically, placing in appropriate containers for disposal. |
| Prevention of secondary hazards | Clean contaminated objects and areas thoroughly observing environmental regulations. |
| 6.4. Reference to other sections |  |
| Reference to other sections | See section 8 for more information. See section 13 for more information. |

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Advice on safe handling

## General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Barrier creams may help to protect the exposed areas of skin.

### 7.2. Conditions for safe storage, including any incompatibilities

## Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep at temperatures between 10 and $25^{\circ} \mathrm{C}$. Store locked up. Accessible only for authorized persons.

### 7.3. Specific end use(s)

Specific use(s)
Risk Management Methods (RMM)

Analytical reagent.
The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

## Exposure Limits

| Chemical name | European Union | United Kingdom | Ireland |
| :---: | :---: | :---: | :---: |
| Quartz | TWA: $0.1 \mathrm{mg} / \mathrm{m}^{3}$ | TWA: $0.1 \mathrm{mg} / \mathrm{m}^{3}$ | TWA: $0.1 \mathrm{mg} / \mathrm{m}^{3}$ |
| $14808-60-7$ |  | STEL: $0.3 \mathrm{mg} / \mathrm{m}^{3}$ | STEL: $0.3 \mathrm{mg} / \mathrm{m}^{3}$ |
| Sodium metabisulfite | - | TWA: $5 \mathrm{mg} / \mathrm{m}^{3}$ | TWA: $5 \mathrm{mg} / \mathrm{m}^{3}$ |
| $7681-57-4$ |  | STEL: $15 \mathrm{mg} / \mathrm{m}^{3}$ | STEL: $15 \mathrm{mg} / \mathrm{m}^{3}$ |

## Derived No Effect Level (DNEL) No information available. <br> Predicted No Effect Concentration No information available. (PNEC)

## Additional information

### 8.2. Exposure controls

## Engineering controls

Personal protective equipment
Eye/face protection

No information available.

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Wear safety glasses with side shields (or goggles).

Hand protection
Wear suitable gloves. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374-1:2016 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III acco.

| Gloves |  |  |  |
| :--- | :--- | :--- | :--- |
| Duration of contact | PPE - Glove material | Glove thickness | Break through time |
| Long term (repeated) | Wear protective Viton <br> ${ }^{\text {TM }}$ <br> gloves | $0,70 \mathrm{~mm}$ | $>480$ minutes |
| Short term | Wear protective nitrile rubber <br> gloves | $0,20 \mathrm{~mm}$ | $>30$ minutes |

## Skin and body protection <br> Respiratory protection <br> Recommended filter type:

## General hygiene considerations

Wear suitable protective clothing.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
ABEK-P3.
Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Barrier creams may help to protect the exposed areas of skin.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Physical state Solid
Colour beige to brown Odour Odourless
Odour threshold Not applicable

| Property | Values | Remarks •Method |
| :--- | :--- | :--- |
| Molecular weight | Not applicable | $5 \%$ @ $20^{\circ} \mathrm{C}$ |
| pH | 4.03 |  |
| Melting point / freezing point | No data available |  |
| Initial boiling point and boiling range | No data available |  |
| Evaporation rate | Not applicable |  |
| Vapour pressure | Not applicable |  |
| Relative vapor density | No data available |  |
| Specific Gravity | 1.02 |  |
| Partition coefficient | log Kow $\sim-0.36$ |  |
| Soil Organic Carbon-Water Partition <br> Coefficient <br> Autoignition temperature | log Koc $\sim 0$ |  |
| Decomposition temperature | No data available |  |


| Dynamic viscosity | Not applicable |
| :--- | :--- |
| Kinematic viscosity Not applicable <br> Relative density  |  |

## Solubility(ies)

Water solubility

| Water solubility classification | Water solubility | Water Solubility Temperature |
| :---: | :---: | :---: |
| Slightly soluble | $>0.1 \mathrm{mg} / \mathrm{L}$ | $25^{\circ} \mathrm{C} / 77^{\circ} \mathrm{F}$ |

## Solubility in other solvents

| Chemical Name | Solubility classification | Solubility | Solubility Temperature |
| :---: | :---: | :---: | :---: |
| Acid | Slightly soluble | $>0.1 \mathrm{mg} / \mathrm{L}$ | $25^{\circ} \mathrm{C} / 77^{\circ} \mathrm{F}$ |

## Metal Corrosivity

Steel Corrosion Rate
Aluminum Corrosion Rate

## Explosive properties

Upper explosion limit Lower explosion limit

## Flammable properties

Flash point
Flammability
Upper flammability limit:
Lower flammability limit
Oxidising properties
Bulk density

### 9.2. Other information

No information available.

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

## Reactivity

No information available.

### 10.2. Chemical stability

Stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.
Hazardous polymerisation Hazardous polymerisation does not occur.

### 10.4. Conditions to avoid

Conditions to avoid Extremes of temperature and direct sunlight. dust formation.
10.5. Incompatible materials

Incompatible materials Oxidising agent.

### 10.6. Hazardous decomposition products

Hazardous Decomposition Products Carbon monoxide. Carbon dioxide. nitrogen oxides. Sulphur oxides. Sodium oxides.

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

## Acute toxicity

Harmful if swallowed

| Mixture | No data available. |
| :--- | :--- |
| Substance | Test data reported below. |

## Oral Exposure Route:

| Chemical name | Endpoint <br> type | Reported <br> dose | Exposure <br> time | Toxicological effects | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quartz | Rat <br> LD 50 | $500 \mathrm{mg} / \mathrm{kg}$ | None reported | None reported | IUCLID |
| 2,7-Naphthalenedisul <br> fonic acid, <br> $4,5-$ dihydroxy-, <br> disodium salt | $R a t$ <br> LD 50 | $>5000 \mathrm{mg} / \mathrm{kg}$ | None reported | None reported | Vendor SDS |
| Sodium metabisulfite | Rat <br> LD 50 | $500 \mathrm{mg} / \mathrm{kg}$ | None reported | None reported | No information available |

## Dermal Exposure Route:

| Chemical name | Endpoint <br> type | Reported <br> dose | Exposure <br> time | Toxicological effects | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sodium metabisulfite | Rat <br> $\mathrm{LD}_{50}$ | $>2000 \mathrm{mg} / \mathrm{kg}$ | None reported | None reported | LOLI |

## Inhalation (Dust/Mist) Exposure Route:

| Chemical name | Endpoint <br> type | Reported <br> dose | Exposure <br> time | Toxicological effects | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sodium metabisulfite | Rat <br> $\mathrm{LC}_{50}$ | $>5.5 \mathrm{mg} / \mathrm{L}$ | 4 hours | None reported | RTECS |

## Acute Toxicity Estimate (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

| ATEmix (oral) | $793.90 \mathrm{mg} / \mathrm{kg}$ |
| :--- | :--- |

## Unknown acute toxicity

$0 \%$ of the mixture consists of ingredient(s) of unknown toxicity.
$0 \%$ of the mixture consists of ingredient(s) of unknown acute oral toxicity
$0 \%$ of the mixture consists of ingredient(s) of unknown acute dermal toxicity
$0 \%$ of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust $/ \mathrm{mist}$ )
$0 \%$ of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
$0 \%$ of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

## Skin corrosion/irritation

May cause skin irritation.
$\begin{array}{ll}\text { Mixture } & \text { No data available. } \\ \text { Substance } & \text { Test data reported below. }\end{array}$

| Chemical name | Test method | Species | Reported <br> dose | Exposure <br> time | Results | Key literature <br> references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Urea | Draize Test | Human | 22 mg | 72 hours | Mild skin irritant | RTECS |
| 2,7-Naphthalenedisul <br> fonic acid, <br> $4,5-$ dihydroxy-, <br> disodium salt | Existing human <br> experience | Human | None reported | None reported | Skin irritant | No information <br> available |

## Serious eye damage/eye irritation

Classification based on data available for ingredients. Irritating to eyes.

## Mixture No data available.

Substance Test data reported below.

| Chemical name | Test method | Species | Reported <br> dose | Exposure <br> time | Results | Key literature <br> references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Urea | OECD Test 405: <br> Acute Eye <br> Corrosion/Irritation | Rabbit | 0.1 mL | Single <br> application | Mild eye irritant | ECHA |
| 2,7-Naphthalenedisul <br> fonic acid, <br> 4,5-dihydroxy-, <br> disodium salt | Existing human <br> experience | Human | None reported | None reported | Eye irritant | No information <br> available |
| Sodium metabisulfite | Draize Test | Rabbit | 107 mg | None reported | Corrosive to eyes | RTECS |

## Respiratory or skin sensitisation

May cause sensitisation by inhalation.

| Mixture | No data available. |
| :--- | :--- |
| Substance | Test data reported below. |

## Respiratory Sensitization Exposure Route:

| Chemical name | Test method | Species | Results | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: |
| Sodium metabisulfite | Based on human <br> experience | Human | Confirmed to be a respiratory <br> sensitizer | GESTIS |

## STOT - single exposure

Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE).

Causes damage to organs if swallowed.
Mixture No data available.
Substance No data available.

## STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.
Mixture No data available.
Substance Test data reported below.

## Oral Exposure Route:

| Chemical name | Endpoint <br> type | Reported <br> dose | Exposure <br> time | Toxicological effects | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sodium metabisulfite | Rat <br> TDLo | $75 \mathrm{mg} / \mathrm{kg}$ | 15 days | Biochemical <br> Enzyme inhibition, induction, or <br> change in blood or tissue levels <br> (phosphatases and <br> dehydrogenases) |  |

## Dermal Exposure Route:

| Chemical name | Endpoint <br> type | Reported <br> dose | Exposure <br> time | Toxicological effects | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Urea | Rat <br> TDLo | $3024 \mathrm{mg} / \mathrm{kg}$ | 28 days | Liver <br> Changes in liver weight <br> Endocrine | RTECS |
|  |  |  | Changes in thymus weight <br> Chronic <br> Changes in testicular weight |  |  |

Inhalation (Dust/Mist) Exposure Route:

| Chemical name | Endpoint <br> type | Reported <br> dose | Exposure <br> time | Toxicological effects | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Urea | Rat <br> TCLo | $288 \mathrm{mg} / \mathrm{m}^{3}$ | 17 weeks | Kidney, Ureter, or Bladder <br> Other changes in urine <br> composition | RTECS |
|  |  |  | Nutritional and Gross <br> Metabolic <br> Changes in chlorine |  |  |

Germ cell mutagenicity
Based on available data, the classification criteria are not met.
Mixture invitro Data No data available.
Substance invitro Data Test data reported below.

| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature <br> references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Urea | DNA damage | Mouse lymphoma | $43000 \mathrm{mg} / \mathrm{L}$ | None reported | Positive test <br> result for <br> mutagenicity | ECHA |


| Sodium metabisulfite | Cytogenetic <br> analysis | Hamster ovary | $0.18 \mathrm{mg} / \mathrm{L}$ | None reported | Positive test <br> result for <br> mutagenicity | RTECS |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |

Mixture invivo Data
Substance invivo Data

No data available.
Test data reported below.

## Oral Exposure Route:

| Chemical name | Test | Species | Reported <br> dose | Exposure <br> time | Results | Key literature <br> references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Urea | Chromosomal <br> abberation | Mouse | 500 mg | 5 days | Inconclusive test <br> result for mutagenicity | ECHA |

## Carcinogenicity

Based on available data, the classification criteria are not met.
Mixture No data available.
Substance Test data reported below.

## Oral Exposure Route:

| Chemical name | Endpoint <br> type | Reported <br> dose | Exposure <br> time | Toxicological effects | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Urea | Rat <br> NOAEL | $2250 \mathrm{mg} / \mathrm{kg}$ | 1.0 years | Negative results for <br> carcinogenicity | ECHA |

## Reproductive toxicity

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

Mixture
Substance

## Oral Exposure Route:

| Chemical name | Endpoint <br> type | Reported <br> dose | Exposure <br> time | Toxicological effects | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Urea | Rat <br> NOAEL | $>1000 \mathrm{mg} / \mathrm{kg}$ | Single <br> generation | No reproductive or <br> developmental toxic effects <br> observed | ECHA |
| Sodium metabisulfite | Rat <br> TDLo | $20000 \mathrm{mg} / \mathrm{kg}$ | None reported | Effects on Newborn <br> Stillbirth | RTECS |

## Aspiration hazard

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

### 11.2 Information on other hazards

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

### 11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.
11.2.2. Other information Other adverse effects

No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

## Ecotoxicity

Unknown aquatic toxicity

## Mixture

| Acute aquatic toxicity: | No data available. |
| :--- | :--- |
| Aquatic Chronic Toxicity: | No data available. |

## Substance

## Acute aquatic toxicity: <br> Test data reported below.

Fish:
No data available.
No data available.

Based on available data, the classification criteria are not met.
Contains $0 \%$ of components with unknown hazards to the aquatic environment.

| Chemical name | Exposure <br> time | Species | Endpoint type | Reported dose | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sodium metabisulfite | 96 hours | Salmo gairdneri | $\mathrm{LC}_{50}$ | $15 \mathrm{mg} / \mathrm{L}$ | IUCLID |

Algae:

| Chemical name | Exposure <br> time | Species | Endpoint type | Reported dose | Key literature references and <br> sources for data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sodium metabisulfite | 96 hours | Scenedesmus <br> subspicatus | $\mathrm{EC}_{50}$ | $40 \mathrm{mg} / \mathrm{L}$ | IUCLID |

## Aquatic Chronic Toxicity: No data available.

### 12.2. Persistence and degradability

Mixture

### 12.3. Bioaccumulative potential

Mixture:
Partition coefficient

No data available.
12.4. Mobility in soil

Soil Organic Carbon-Water Partition $\quad \log \mathrm{K}_{\mathrm{oc}} \sim 0$
Coefficient

### 12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

| Chemical name | PBT and vPvB assessment |
| :---: | :---: |
| Sodium metabisulfite | The substance is not PBT $/ \mathrm{vPvB}$ |

### 12.6. Endocrine disrupting properties

Endocrine Disruptor Information: This product does not contain any known or suspected endocrine disruptors

### 12.7. Other adverse effects

No information available.

| Ozone: | Not applicable |
| :--- | :--- |
| Ozone depletion potential (ODP): | No information available |

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

## Advice on Disposal

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

## Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.

## Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.

Contaminated packaging
Dispose of contents/containers in accordance with local regulations.
Other Information
Waste codes should be assigned by the user based on the application for which the product was used.

## Section 14: TRANSPORT INFORMATION

## IMDG

14.1 UN number or ID number Not regulated
14.2 Proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing Group Not regulated
14.5 Marine pollutant Not applicable
14.6 Special precautions for user See section 6-8 for more information
14.7. Transport in bulk according to Not applicable

Annex II of MARPOL and the IBC
Code
ADR
14.1 UN number or ID number Not regulated
14.2 Proper shipping name
14.3 Transport hazard class(es)
14.4 Packing Group
14.5 Environmental hazards
14.6 Special precautions for user

Not regulated
Not regulated
Not regulated
Not applicable
See section 6-8 for more information
IATA
14.1 UN number or ID number
14.2 Proper shipping name

Not regulated
Not regulated
14.3 Transport hazard class(es)
14.4 Packing group

Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user See section 6-8 for more information

## Additional information

## Section 15: REGULATORY INFORMATION

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

National regulations

## European Union

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

Take note of Directive 94/33/EC on the protection of young people at work
Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

## Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

| Chemical name | Restricted substance per REACH <br> Annex XVII | Substance subject to authorisation per <br> REACH Annex XIV |
| :---: | :---: | :---: |
| Sodium metabisulfite $-7681-57-4$ | 75. |  |

## Persistent Organic Pollutants Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

- H3 - STOT SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

## Germany

Water hazard class (WGK) strongly hazardous to water (WGK 3)

France
Occupational Illnesses (R-463-3, France)

| Chemical name | French RG number | Title |
| :---: | :---: | :---: |
| Quartz | RG 25 | - |
| $14808-60-7$ |  | - |
| Sodium metabisulfite | RG 66 | - |

International Inventories
EINECS/ELINCS

| TSCA | Complies |
| :--- | :--- |
| DSL/NDSL | Complies |
| ENCS | Does not comply |
| IECSC | Complies |
| KECL- Existing substances | Complies |
| PICCS | Complies |
| AICS | Complies |

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

### 15.2. Chemical safety assessment

Chemical Safety Report Chemical safety assessments for substances in this mixture were not carried out.

|  | Section 16: OTHER INFORMATION |
| :---: | :---: |
| Issue Date | 25-Apr-2005 |
| Revision Date | 14-Feb-2023 |
| Revision Note | New SDS, SDS sections updated, 3, 9, 11, 12. |
| Key or legend to abbreviations and acronyms used in the safety data sheet |  |
| Legend |  |
| ** | Hazard Designation |
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieure |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| CAS | Chemical Abstracts Service Number |
| Ceiling | Maximum limit value |
| CLP | Classification, Labelling and Packaging of substances and mixtures [Regulation (EC) No. 1272/2008] |
| DNEL | Derived No Effect Level (DNEL) |
| EC | European Community |
| ECHA | ECHA (The European Chemicals Agency) |
| EC50 | Effective Concentration to 50\% of a test population |
| EEC | European Economic Community |
| EN | European Standard |
| IMDG | International Maritime Dangerous Goods (IMDG) |
| IATA | International Air Transport Association (IATA) |
| IATA-DGR | International Air Transport Association - Dangerous Goods Regulations |
| ICAO | International Civil Aviation Organization |
| ICAO-TI | International Civil Aviation Organization - Technical Instructions |
| IUCLID | IUCLID (The International Uniform Chemical Information Database) |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals |
| LOAEL | Lowest observed adverse effect level |
| LOAEC | Lowest observed adverse effect concentration |
| LC50 | Lethal Concentration to 50\% of a test population |
| LD50 | Lethal Dose to 50\% of a test population (Median Lethal Dose) |


|  |  |
| :--- | :--- |
| LOLI | LOLI (List of Lists - An International Chemical Regulatory Database) |
| MAK | Maximale Arbeitsplatz-Konzentration, a German expression corresponding to threshold limit |
|  | value, which relates to safe daily exposure levels to chemical substances |
| NOAEL | NOAEL (No observed adverse effect level) |
| NOAEC | No observed adverse effect concentration |
| OSHA | OSHA (Occupational Safety and Health Administration of the US Department of Labour) |
| PEC | Predicted Effect Concentration |
| PNEC | Predicted No Effect Concentration (PNEC) |
| PBT | Persistent, Bioaccumulative, and Toxic (PBT) Chemicals |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals [Regulation (EC) No. |
|  | 1907/2006]) |
| RID | Règlement international concernant le transport des marchandises dangereuses par chemin |
|  | de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) |
| RTECS | RTECS (Registry of Toxic Effects of Chemical Substances) |
| TWA | TWA (time-weighted average) |
| SKN* | Skin designation |
| SKN+ | Skin sensitisation |
| STEL | STEL (Short Term Exposure Limit) |
| STOT | Specific Target Organ Toxicity |
| STOT RE | Specific target organ toxicity - repeated exposure |
| STOT SE | Specific target organ toxicity - single exposure |
| SVHC | Substances of Very High Concern |
| TLV | Threshold Limit Value |
| TRGS | Technical rules for hazardous substances, Germany |
| TSCA | Toxic Substances Control Act |
| UN | United Nations |
| vPvB | very persistent and very bioaccumulative |
| VOC | Volatile organic compounds |
| AwSV | Administrative regulation of water polluting substances, Germany |

Key literature references and sources for data
See Section 11: TOXICOLOGICAL INFORMATION
See Section 12: ECOLOGICAL INFORMATION

## Classification procedure

| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
| :--- | :--- |
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - Vapour | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Skin sensitisation | Calculation method |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration toxicity | Calculation method |
| Ozone | Calculation method |

## Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed
H315-Causes skin irritation
H318-Causes serious eye damage
H319-Causes serious eye irritation
H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation

H370-Causes damage to organs
H372 - Causes damage to organs through prolonged or repeated exposure H412 - Harmful to aquatic life with long lasting effects

Training Advice

## Restrictions on use

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

None

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
End of Safety Data Sheet

