SAFETY DATA SHEET

In accordance with 1907/2006 annex II and 1272/2008
(All references to EU regulations and directives are abbreviated into only the numeric term)
Revision date 2026-05-06
Replaces SDS issued 2023-08-11
Version number 5.0

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

1.1. Product identifier

Trade name	Red Free Protein S Reaction Buffer
Article number	C3027, C3045, C3091, C3092

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

Identified uses	Laboratory chemicals

1.3. Details of the supplier of the safety data sheet

Company	Nordic Biomarker Vildmannavägen 1 903 47 Umeå Sweden
Telephone	+46 90718601
E-mail	info@nordicbiomarker.com

1.4. Emergency telephone number

Phone number for emergencies: 999 or 112. The numbers are available 24/7.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Upon assessment, this mixture is not classified as hazardous according to 1272/2008

2.2. Label elements

Hazard pictogram	Not applicable
Signal word	Not applicable
Hazard statement	Not applicable
Precautionary statement	Not applicable

Supplemental hazard information

EUH210 Safety data sheet available on request.
EUH208 Contains 2-METHYLISOTHIAZOL-3(2H)-ONE. May produce an allergic reaction.

2.3. Other hazards

The product does not contain any substances ≥ 0,1% that are assessed to be a PBT or a vPvB in accordance with Annex XIII of REACH (EC) No 1907/2006.
The product does not contain any substances ≥ 0,1% identified as having endocrine disruptive properties in accordance with Article 59(1) of REACH (EC) No 1907/2006 and in accordance with the criteria set out in (EU) 2017/2100 or (EU) 2018/605.
The product contains substance(s) of biological origin which may contain pathogens.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
2-METHYLISOTHIAZOL-3(2H)-ONE		
CAS No: 2682-20-4 EC No: 220-239-6 Index No: 613-326-00-9 REACH: 01-2120764690-50	Acute Tox. 2, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Eye Dam. 1, Skin. Sens. 1A, Aquatic Acute 1, M = 10, Aquatic Chronic 1, M = 1; H330, H311, H301, H314, EUH071, H318, H317, H400, H410 *Specific concentration limits and acute toxicity estimates (ATE):* *Skin. Sens. 1A, H317: C ≥ 0,0015 %*	<0.0015 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: First aid measures

4.1. Description of first aid measures

Generally

In case of concern, or if symptoms occur, call a doctor/physician.

Upon breathing in

Fresh air and rest. If symptoms persist seek medical advice.

Upon eye contact

Remove contact lenses immediately if possible.

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

Upon skin contact

Remove contaminated clothes.

Wash the skin with soap and water.

If symptoms occur, contact a physician.

Upon ingestion

Rinse nose, mouth and throat with water.

If symptoms persist contact a doctor.

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

Upon skin contact

Allergic reactions can occur in sensitized individuals.

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

Symptomatic treatment.

Upon contact with a doctor, make sure to have the label or this safety data sheet with you.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

5.2. Special hazards arising from the substance or mixture

In case of fire, substances hazardous to health, or substances harmful in other respects, may be dispersed.

5.3. Advice for firefighters

Protective measures to be taken with regard to other materials at the scene of the fire.

In case of fire use proper breathing apparatus.

Wear full protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep unauthorized and unprotected people at a safe distance.
Avoid inhalation and exposure to skin and eyes.
Note that there is a risk of slipping if product is leaking/spilling.
Ensure good ventilation.
Use recommended safety equipment, see section 8.

6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

6.3. Methods and material for containment and cleaning up

Small spills can be wiped up with a cloth or similar. Then flush the spill site with water. Larger spills should first be covered with sand or earth and then be collected. Collected material should be disposed according to Section 13.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Take the necessary preventive and protective measures for safe handling.
Avoid inhalation and contact with skin and eyes.
Work in order to avoid spillage. If spillage does occur, address it immediately in accordance with the directions specified in Section 6 of this safety data sheet.
Do not eat, drink or smoke in premises where this product is handled.
Wash your hands after using the product.
Remove contaminated clothes.
Wash contaminated clothing before reuse.
Keep away from incompatible products.
Use recommended safety equipment, see section 8.
Implement appropriate engineering controls if necessary, see Section 8.

7.2. Conditions for safe storage, including any incompatibilities

The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in the environment.
Take the necessary preventive and protective measures for safe storage.
Store tightly, in original packaging.
Always use sealed and visibly labeled packages.
Store in dry and cool area.

7.3. Specific end use(s)

See identified uses in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
8.1.1. National limit values
SODIUM HYDROXIDE
United Kingdom (EH40/2005)

Short term exposure limit (STEL) 2 mg/m^3

SODIUM AZIDE
United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 0.1 mg/m^3
Short term exposure limit (STEL) 0.3 mg/m^3
Note Sk

Explanations of abbreviations are given in Section 16b

DNEL
2-METHYLISOTHIAZOL-3(2H)-ONE

	Type of exposure	Route of exposure	Value
Worker	Acute Local	Inhalation	0.043 mg/m^3
Worker	Chronic Local	Inhalation	0.021 mg/m^3
Consumer	Acute Local	Inhalation	0.043 mg/m^3
Consumer	Acute Systemic	Oral	0.053 mg/kg bw
Consumer	Chronic Local	Inhalation	0.021 mg/m^3
Consumer	Chronic Systemic	Oral	0.027 mg/kg bw

PNEC
2-METHYLISOTHIAZOL-3(2H)-ONE

Environmental protection target	PNEC value
Fresh water	3.39 µg/L
Marine water	3.39 µg/L
Microorganisms in sewage treatment	230 µg/L
Soil (agricultural)	0.0471 mg/kg dw
Intermittent	3.39 µg/L

8.2. Exposure controls

The risks posed by the product or its constituents must be considered in the task specific risk assessment, in accordance with current working environment legislation. The risk assessment should be reviewed regularly and updated if necessary.

8.2.1. Appropriate engineering controls

The ventilation in the workplace must ensure an air quality that meets the requirements of the current working environment legislation. Local exhaust ventilation should be used to remove airborne contaminants at the source.

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection

Eye protection according to standard EN166 should be worn if there is any danger of direct exposure or splashing.

Skin protection

Wear suitable protective clothing when necessary.
Use protective gloves fulfilling the standard EN374 if there is a risk of direct contact.
During continuous contact use gloves with a minimum breakthrough time of at least 240 minutes, preferably over 480 minutes.
The most suitable protective glove should be chosen in consultation with the glove supplier, taking into account the risk assessment for the specific task and the properties of the chemicals involved. Note that the breakthrough time of the material is affected by the duration of the exposure, temperature conditions, abrasion, etcetera.
Based on the chemical properties of the product, the following glove materials are recommended (EN 374):.
– Nitrile rubber.

Respiratory protection

Use appropriate respiratory protective equipment in case of insufficient ventilation.
The most appropriate respiratory protective equipment should be decided in consultation with the appointed safety representative, taking into account the risk assessment for the specific task.
Based on the physical and chemical properties of the product, the following filter type(s) and/or filter combination(s) are recommended:.
– A/P2.

8.2.3. Environmental exposure controls

For limiting environmental exposure, see section 12.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

(a) Physical state	liquid Form: liquid
(b) Colour	Transparent
(c) Odour	scentless
(d) Melting point/freezing point	Not indicated
(e) Boiling point or initial boiling point and boiling range	Not indicated
(f) Flammability	Not indicated
(g) Lower and upper explosion limit	Not indicated
(h) Flash point	Not indicated
(i) Auto-ignition temperature	Not indicated
(j) Decomposition temperature	Not indicated
(k) pH	When supplied, pH is: 7 - 10
(l) Kinematic viscosity	Not indicated
(m) Solubility	Solubility in water: Soluble
(n) Partition coefficient n-octanol/water (log value)	Not indicated
(o) Vapour pressure	Not indicated
(p) Density and/or relative density	Not indicated
(q) Relative vapour density	Not indicated
(r) Particle characteristics	Not indicated

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not indicated

9.2.2. Other safety characteristics

Not indicated

SECTION 10: Stability and reactivity

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known during normal use.

10.4. Conditions to avoid

There are no known conditions to avoid.

10.5. Incompatible materials

There are no known incompatible materials.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

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

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

Acute toxicity

The product is not classified as acutely toxic.

2-METHYLISOTHIAZOL-3(2H)-ONE

LD50 rat 24h: > 2000 mg/kg Dermally
LD50 rat 24h: > 2000 mg/kg Orally

Skin corrosion/irritation

The product is not classified for skin corrosion/irritation.

Serious eye damage/irritation

The product is not classified for serious eye damage/eye irritation.

Respiratory or skin sensitisation

The product is not classified as sensitising.
May cause an allergic reaction in sensitised people.

Germ cell mutagenicity

The product is not classified as mutagen.

Carcinogenicity

The product is not classified as carcinogenic.

Reproductive toxicity

The product is not classified as a reproductive toxicant.

STOT-single exposure

The product is not classified for specific organ toxicity after single exposure.

STOT-repeated exposure

The product is not classified for specific organ toxicity after repeated exposure.

Aspiration hazard

The product is not classified as being toxic for aspiration.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

The product is not classified as an endocrine disruptor for human health.

11.2.2. Other information

Not indicated.

SECTION 12: Ecological information

12.1. Toxicity

The product is not to be labelled as a environmental hazard. However, it is not inconceivable that large emissions, or repeated small emissions, can have a harmful effect on the environment.
Prevent release on land, in water and drains.

2-METHYLISOTHIAZOL-3(2H)-ONE

LC50 Rainbow trout (Oncorhynchus mykiss) 96h: 6 mg/l
EC50 Freshwater water flea (Daphnia magna) 48 h: 1.68 mg/l
EC50 Algae (Scenedesmus subspicatus) 72h: 0.445 mg/l

12.2. Persistence and degradability

No information is available.

12.3. Bioaccumulative potential

No information is available.

12.4. Mobility in soil

No information is available.

12.5. Results of PBT and vPvB assessment

The product does not contain any substances ≥ 0,1% that are assessed to be a PBT or a vPvB in accordance with Annex XIII of REACH (EC) No 1907/2006.

12.6. Endocrine disrupting properties

The product is not classified as an endocrine disruptor for the environment.

12.7. Other adverse effects

No known effects or hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste handling of the product

Avoid discharge into sewers.
The product is not classified as hazardous waste.
Empty, rinsed packaging is sent for recycling where practicable.
See directive 2008/98/EC on waste. Observe national or regional provisions on waste management.

SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number or ID number

Not classified as dangerous goods

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

14.8 Other transport information

Not applicable

SECTION 15: Regulatory information

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

Not indicated.

15.2. Chemical safety assessment

Not indicated.

SECTION 16: Other information

16a. Indication of where changes have been made to the previous version of the safety data sheet
Revisions of this document

Earlier versions
2023-08-11 Changes in section(s) 2, 3, 4, 6, 7, 8, 10, 11, 12, 16.

16b. Legend to abbreviations and acronyms used in the safety data sheet
Full texts for Hazard Class and Category Code mentioned in section 2 and 3

Acute Tox. 2	Acute toxicity (inhal.), Hazard Category 2 - Acute Tox. 2, H330 - Fatal if inhaled
Acute Tox. 3	Acute toxicity (dermal), Hazard Category 3 - Acute Tox. 3, H311 - Toxic in contact with skin
Acute Tox. 3	Acute toxicity (oral), Hazard Category 3 - Acute Tox. 3, H301 - Toxic if swallowed
Skin Corr. 1B	Skin corrosion/irritation, Hazard Category 1B - Skin Corr. 1B, H314 - Causes severe skin burns and eye damage
Eye Dam. 1	Serious eye damage/eye irritation, Hazard Category 1 - Eye Dam. 1, H318 - Causes serious eye damage
Skin. Sens. 1A	Respiratory or skin sensitisation, Sensitisation — Skin, hazard category 1A - Skin. Sens. 1A, H317 - May cause an allergic skin reaction
Aquatic Acute 1, M = 10	Hazardous to the aquatic environment — Acute Hazard, Category 1 - Aquatic Acute 1, M = 10, H400 - Very toxic to aquatic life
Aquatic Chronic 1, M = 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1 - Aquatic Chronic 1, M

= 1, H410 - Very toxic to aquatic life with long lasting effects

Explanations of the abbreviations in Section 8

Sk Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity

Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road
RID Regulations concerning the International Transport of Dangerous Goods by Rail
IMDG International Maritime Dangerous Goods Code
ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)
IATA The International Air Transport Association

16c. Key literature references and sources for data
Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I , as updated to 2026-05-06.
Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
2008/98/EC DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I , where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI .

16e. List of relevant hazard statements and/or precautionary statements
Full texts for hazard statements mentioned in section 3

H330 Fatal if inhaled
H311 Toxic in contact with skin
H301 Toxic if swallowed
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H317 May cause an allergic skin reaction
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment
Warning for misuse

Not indicated.

Other relevant information

Not indicated

Editorial information

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