

## Nitrate reagent 2 (Griess reagent)

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758 and SI 2020/1577

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

#### 1.1 Product identifier

Product Name Nitrate reagent 2 (Griess reagent)  
Trade Name Griess reagent

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

Identified Use(s) Reagent  
Uses Advised Against Not known.

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

##### Manufacturer

Company Identification ClearWater Sensors  
Address of Manufacturer Solent Business Centre 343 Millbrook Road West, Southampton  
Postal code SO15 0HW  
Telephone: +44 23 8212 2759  
Fax Not known.  
E-mail info@clearwatersensors.com  
Office hours 09:00 - 17:00

##### Supplier

Company Identification ClearWater Sensors  
Address of Supplier Solent Business Centre 343 Millbrook Road West, Southampton  
Postal code SO15 0HW  
Telephone: +44 23 8212 2759  
Fax Not known.  
E-mail info@clearwatersensors.com  
Office hours 09:00 - 17:00

#### 1.4 Emergency telephone number

Emergency Phone No. +44 23 8212 2759  
Contact Technical department

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

GB CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 Not classified as dangerous for supply/use.

#### 2.2 Label elements

According to GB CLP Regulations, UK SI 2019/720 and UK SI 2020/1567  
Product Name Nitrate reagent 2 (Griess reagent)  
Hazard Pictogram(s) None.  
Signal Word(s) None.  
Hazard Statement(s) None.  
Precautionary Statement(s) None.

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### 2.3 Other hazards

None known.

### 2.4 Additional Information

None.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Not applicable.

### 3.2 Mixtures

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / Registration number(s)	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Hydrochloric acid 37%	7647-01-0	231-595-7	1	Skin Corr. 1B H314 STOT SE 3 H335	GHS05 GHS07
Sulphanilamide	63-74-1	200-563-4	0.1	Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335	GHS07
N-2-aminoethyl-1-naphthylamine dihydrochloride	1465-25-4	215-981-2	<0.01	Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335	GHS07

For full text of H/P Statements see section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin Contact	Wash skin with water.
Eye Contact	Flush eyes with water for at least 15 minutes.
Ingestion	Wash out mouth with water.

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

None anticipated. Treat symptomatically.

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

Unlikely to be required but if necessary treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Suitable Extinguishing media	As appropriate for surrounding fire.
Unsuitable extinguishing media	None.

### 5.2 Special hazards arising from the substance or mixture

None anticipated. Heating may cause decomposition.

### 5.3 Advice for firefighters

As appropriate for surrounding fire.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Provide adequate ventilation. Wear suitable gloves if prolonged skin contact is likely.

### 6.2 Environmental precautions

Do not release large quantities into the surface water or into drains.

### 6.3 Methods and material for containment and cleaning up

Adsorb spillages onto sand, earth or any suitable adsorbent material.

### 6.4 Reference to other sections

See Also Section 8, 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Not known.

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

Storage temperature	Ambient.
Storage life	Stable under normal conditions.
Incompatible materials	None known.

### 7.3 Specific end use(s)

Reagent

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Hydrogen chloride (gas and aerosol mists)	7647-01-0	1	2	5	8	

Region	Source
United Kingdom	UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark	Notes
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### 8.2 Exposure controls

8.2.1. Appropriate engineering controls    Ensure adequate ventilation.

8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).

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Skin protection Not normally required. Wear suitable gloves if prolonged skin contact is likely



Respiratory protection Normally no personal respiratory protection is necessary.



Thermal hazards None known.

8.2.3. Environmental Exposure Controls Do not release large quantities into the surface water or into drains.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Liquid. Colour : Not known.
Odour	Not known.
Odour threshold	Not known.
pH	Not known.
Melting point/freezing point	Not known.
Initial boiling point and boiling range	Not known.
Flash Point	Not known.
Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	Not known.
Vapour density	Not known.
Density (g/ml)	Not known.
Relative density	Not known.
Solubility(ies)	Solubility (Water) : Not known. Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.

#### 9.2 Other information

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity

None anticipated.

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### 10.2 Chemical Stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

### 10.4 Conditions to avoid

None anticipated.

### 10.5 Incompatible materials

Not known.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity - Ingestion	Calculation method : Not classified.
Acute toxicity - Skin Contact	Calculation method : Not classified.
Acute toxicity - Inhalation	Calculation method : Not classified.
Skin corrosion/irritation	Calculation method : Not classified.
Serious eye damage/irritation	Calculation method : Not classified.
Skin sensitization data	Calculation method : Not classified.
Respiratory sensitization data	Calculation method : Not classified.
Germ cell mutagenicity	Calculation method : Not classified.
Carcinogenicity	Calculation method : Not classified.
Reproductive toxicity	Calculation method : Not classified.
Lactation	Calculation method : Not classified.
STOT - single exposure	Calculation method : Not classified.
STOT - repeated exposure	Calculation method : Not classified.
Aspiration hazard	Calculation method : Not classified.

### 11.2 Other information

Not known.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

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### 12.2 Persistence and degradability

Not known.

### 12.3 Bioaccumulative potential

Not known.

### 12.4 Mobility in soil

Not known.

### 12.5 Results of PBT and vPvB assessment

Not known.

### 12.6 Other adverse effects

Not known.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Dispose at suitable refuse site.

### 13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

## SECTION 14: TRANSPORT INFORMATION

**Not classified as hazardous for transport.**

### 14.1 UN number

Not applicable

### 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 classified as a Marine Pollutant.

### 14.6 Special precautions for user

Not known

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not known

## SECTION 15: REGULATORY INFORMATION

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**United Kingdom Regulations - Authorisations and/or Restrictions On Use**

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UK REACH Candidate List of Substances of Very High Concern for Authorisation	Not listed
UK REACH Authorisation List (Annex XIV) list of substances subject to authorisation	Not listed
UK REACH Restrictions List (Annex XVII) Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Hydrochloric acid 37% (7647-01-0), Sulphanilamide (63-74-1), N-2-aminoethyl-1-naphthylamine dihydrochloride (1465-25-4)
The Persistent Organic Pollutants Regulations 2007 (SI 2007/3106) as amended	Not listed
The Ozone-Depleting Substances and Fluorinated Greenhouse Gases (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019/583)	Not listed
The Prior Informed Consent (PIC) Regulations concerning the export and import of hazardous chemicals SI2008/2108 as amended	Not listed

### European Regulations - Authorisations and/or Restrictions On Use

Community Rolling Action Plan (CoRAP)	Not listed
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### 15.2 Chemical Safety Assessment

United Kingdom	A REACH chemical safety assessment has not been carried out.
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## SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

### LEGEND

Hazard Pictogram(s)	None. GHS05: GHS: Corrosion GHS07: GHS: Exclamation mark
Hazard classification	Skin Corr. 1B : Skin corrosion/irritation, Category 1B Skin Irrit. 2 : Skin corrosion/irritation, Category 2 Eye Irrit. 2 : Serious eye damage/irritation, Category 2 STOT SE 3 : Specific target organ toxicity — single exposure, Category 3
Hazard Statement(s)	H314: Causes severe skin burns and eye damage. H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.
Precautionary Statement(s)	None.

## Nitrate reagent 2 (Griess reagent)

### Acronyms

ATE : Acute Toxicity Estimate  
CAS : Chemical Abstracts Service  
DNEL : Derived No Effect Level  
EC : European Community  
EINECS : European Inventory of Existing Commercial Chemical Substances  
LTEL : Long term exposure limit  
PBT : Persistent, Bioaccumulative and Toxic  
PNEC : Predicted No Effect Concentration  
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals  
STEL : Short term exposure limit  
STOT : Specific Target Organ Toxicity  
vPvB : very Persistent and very Bioaccumulative

### Key literature references and sources for data used to compile the SDS

GB CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

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