



## SAFETY DATA SHEET GREEN 2 SOLUTION

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

#### 1.1. Product identifier

Product name GREEN 2 SOLUTION  
Product No. PT 228, PT 270 SPEC, PT 296, PT 791, PT 802, PT 804, PT 753

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

Identified uses CONFIRMING PHOTOMETER PERFORMANCE

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

Supplier PALINTEST LIMITED  
PALINTEST HOUSE  
TEAM VALLEY  
GATESHEAD  
TYNE & WEAR NE11 0NS  
ENGLAND  
TEL 0191 491 0808  
FAX 0191 482 5372  
palintest@palintest.com

#### 1.4. Emergency telephone number

+44 (0) 191 491 0808 (MON-FRI 08:45-16:45)  
National Emergency Telephone Number  
NHS Direct: 0845 4647 (England and Wales) NHS 24: 08454 24 24 24 (Scotland)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Carc. Cat. 1;R49, Repr. Cat. 1;R61. Xn;R48/20. Muta Cat. 3;R68. R42/43. N;R51/53.

Human health

See section 11 for additional information on health hazards.

Environment

The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See section 12 as well.

Physical and Chemical Hazards

When handled correctly, undamaged units represent no danger.

#### 2.2. Label elements

Contains NICKEL (II) SULPHATE HEXAHYDRATE

Labelling



Toxic



Dangerous for the environment

Risk Phrases

R42/43	May cause sensitisation by inhalation and skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R49	May cause cancer by inhalation.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R61	May cause harm to the unborn child.

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Safety Phrases	R68	Possible risk of irreversible effects.
	S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
	S53	Avoid exposure - obtain special instructions before use.
	S60	This material and its container must be disposed of as hazardous waste.
	S61	Avoid release to the environment. Refer to special instructions/safety data sheets.
	P11	Restricted to professional users.

## 2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

HYDROCHLORIC ACID ...%			<5.5 %
CAS-No.: 7647-01-0	EC No.: 231-595-7	Registration Number: 01-2119484862-27-XXXX	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Skin Corr. 1B - H314	C;R34
STOT SE 3 - H335	Xi;R37

NICKEL (II) SULPHATE HEXAHYDRATE			<5.5 %
CAS-No.: 10101-97-0	EC No.: 232-104-9	Registration Number: N/A	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Acute Tox. 4 - H302	T;R48/23.
Acute Tox. 4 - H332	Carc. Cat. 1;R49,
Skin Irrit. 2 - H315	Repr. Cat. 1;R61.
Resp. Sens. 1 - H334	Xn;R20/22.
Skin Sens. 1 - H317	Muta. Cat. 3;R68.
Muta. 2 - H341	Xi;R38.
Carc. 1A - H350i	N;R50/53.
Repr. 1A - H360D	R42/43.
STOT RE 1 - H372	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### Composition Comments

The data shown are in accordance with the latest EC Directives.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General information

When handled correctly, undamaged units represent no danger.

#### Inhalation

Unlikely route of exposure as the product does not contain volatile substances.

#### Ingestion

Get medical attention immediately!

#### Skin contact

Wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

#### Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

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

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## General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

### Inhalation

This is unlikely to occur but symptoms similar to those of ingestion may develop.

### Ingestion

May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.

### Skin contact

May cause serious chemical burns to the skin.

### Eye contact

May cause blurred vision and serious eye damage.

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

Treat Symptomatically.

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media**

Extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

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

Hazardous combustion products

When heated, toxic and corrosive vapours/gases may be formed.

### **5.3. Advice for firefighters**

Special Fire Fighting Procedures

No specific fire fighting procedure given.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Wear protective clothing as described in Section 8 of this safety data sheet.

### **6.2. Environmental precautions**

Avoid release to the environment.

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

Absorb in vermiculite, dry sand or earth and place into containers. Wear necessary protective equipment. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

### **6.4. Reference to other sections**

Wear protective clothing as described in Section 8 of this safety data sheet.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Observe good chemical hygiene practices.

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

Keep in original container. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Store in a cool place. Store in a dry place.

### **7.3. Specific end use(s)**

The identified uses for this product are detailed in Section 1.2.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1. Control parameters**

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Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
HYDROCHLORIC ACID ...%	WEL	1 ppm	2 mg/m <sup>3</sup>	5 ppm	8 mg/m <sup>3</sup>	
NICKEL (II) SULPHATE HEXAHYDRATE	WEL		0,1 mg/m <sup>3</sup>			Carc, Sen, Sk, as Ni

WEL = Workplace Exposure Limit.

Carc = Capable of causing cancer and/or heritable genetic damage.

Sen = Capable of causing occupational asthma.

Sk = Can be absorbed through skin.

Ingredient Comments

Due to the hazardous nature of ingredients, exposure should be minimal. WEL = Workplace Exposure Limits

### **8.2. Exposure controls**

Protective equipment



Respiratory equipment

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

Hand protection

Protective gloves are recommended.

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Hygiene measures

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Wash promptly if skin becomes contaminated.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance

Liquid

Colour

Green.

### **9.2. Other information**

Not known.

## SECTION 10: STABILITY AND REACTIVITY

### **10.1. Reactivity**

There are no known reactivity hazards associated with this product.

### **10.2. Chemical stability**

Stable under the prescribed storage conditions.

### **10.3. Possibility of hazardous reactions**

Not known.

### **10.4. Conditions to avoid**

There are no known conditions that are likely to result in a hazardous situation.

### **10.5. Incompatible materials**

Materials To Avoid

No specific, or groups of materials are likely to react to produce a hazardous situation.

### **10.6. Hazardous decomposition products**

When heated, vapours/gases hazardous to health may be formed.

## SECTION 11: TOXICOLOGICAL INFORMATION

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## **11.1. Information on toxicological effects**

Toxicological information

This material is toxic.

Other Health Effects

Mutagen Category 3. Carcinogen Category 1. Toxic to Reproductive Health Category 1.

Ingestion

May cause discomfort if swallowed.

Skin contact

May cause sensitisation by skin contact.

Health Warnings

Known or suspected carcinogen for humans.

Specific effects

Contains a substance/a group of substances which may cause cancer.

## **SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity

The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

### **12.1. Toxicity**

Acute Fish Toxicity

Very toxic to aquatic organisms.

### **12.2. Persistence and degradability**

Degradability

There are no data on the degradability of this product.

### **12.3. Bioaccumulative potential**

Bioaccumulative potential

No data available on bioaccumulation.

### **12.4. Mobility in soil**

Mobility:

The product is water soluble and may spread in water systems.

### **12.5. Results of PBT and vPvB assessment**

Not Classified as PBT/vPvB by current EU criteria.

### **12.6. Other adverse effects**

None known.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

### **13.1. Waste treatment methods**

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

## **SECTION 14: TRANSPORT INFORMATION**

Road Transport Notes

The product is considered hazardous goods in "excepted quantities" as packaged as per ADR European agreement, concerning the international carriage of dangerous goods by road 2013 section 3.5.1.4

Air Transport Notes

This product is considered as Dangerous Goods Permitted in Excepted Quantities as packaged as per Section 2.6.2.2 of the IATA Dangerous Goods Regulations 54th Edition.

### **14.1. UN number**

UN No. (ADR/RID/ADN)

3082

UN No. (IMDG)

3082

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UN No. (ICAO) 3082

## 14.2. UN proper shipping name

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NICKEL (II) SULPHATE HEXAHYDRATE)

## 14.3. Transport hazard class(es)

ADR/RID/ADN Class 9  
ADR/RID/ADN Class Class 9: Miscellaneous dangerous substances and articles.  
ADR Label No. 9  
IMDG Class 9  
ICAO Class/Division 9  
Transport Labels



## 14.4. Packing group

ADR/RID/ADN Packing group III  
IMDG Packing group III  
ICAO Packing group III

## 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant



## 14.6. Special precautions for user

EMS F-A, S-F  
Emergency Action Code •3Z  
Hazard No. (ADR) 90  
Tunnel Restriction Code (E)

## 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

### SECTION 15: REGULATORY INFORMATION

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

Approved Code Of Practice  
Safety Data Sheets for Substances and Preparations.

## 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

### SECTION 16: OTHER INFORMATION

Issued By L. Morgan  
Revision Date 02/12/2013

## GREEN 2 SOLUTION

Revision	3
Supersedes date	5 December 2012
Safety Data Sheet Status	Approved.
Risk Phrases In Full	
R34	Causes burns.
R20/22	Harmful by inhalation and if swallowed.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R49	May cause cancer by inhalation.
R61	May cause harm to the unborn child.
R42/43	May cause sensitisation by inhalation and skin contact.
R68	Possible risk of irreversible effects.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Hazard Statements In Full	
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H360D	May damage the unborn child.
H372	Causes damage to organs <<Organs>> through prolonged or repeated exposure.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

### Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.