



SAFETY DATA SHEET RED 2 SOLUTION

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

1.1. Product identifier

Product name RED 2 SOLUTION
Product No. PT 226, PT 232/US, 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. 2;R49, Repr. Cat. 2;R60. 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 harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

Physical and Chemical Hazards

When handled correctly, undamaged units represent no danger.

2.2. Label elements

Contains COBALT DICHLORIDE

Labelling



Toxic



Dangerous for the environment

Risk Phrases

| | |
|--------|---|
| R42/43 | May cause sensitisation by inhalation and skin contact. |
| R49 | May cause cancer by inhalation. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R60 | May impair fertility. |
| R68 | Possible risk of irreversible effects. |

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Safety Phrases

| | |
|-----|---|
| 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. |
| S57 | Use appropriate containment to avoid environmental contamination. |
| S60 | This material and its container must be disposed of as hazardous waste. |
| 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) Skin Corr. 1B - H314 STOT SE 3 - H335 | Classification (67/548/EEC) C;R34 Xi;R37 | | |
| COBALT DICHLORIDE | | | <5.5 % |
| CAS-No.: 7646-79-9 | EC No.: 231-589-4 | Registration Number: 01-2119517584-37-XXXX | |
| Classification (EC 1272/2008) Acute Tox. 4 - H302 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 1B - H350i Repr. 1B - H360F Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 | Classification (67/548/EEC) Carc. Cat. 2;R49 Muta. Cat. 3;R68 Repr. Cat. 2;R60 Xn;R22 R42/43 N;R50/53 | | |

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

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.

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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

| Name | STD | TWA - 8 Hrs | | STEL - 15 Min | | Notes |
|------------------------|-----|-------------|-----------|---------------|---------|------------------|
| COBALT DICHLORIDE | WEL | | 0,1 mg/m3 | | | Carc, Sen, as Co |
| HYDROCHLORIC ACID ...% | WEL | 1 ppm | 2 mg/m3 | 5 ppm | 8 mg/m3 | |

WEL = Workplace Exposure Limit.

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

Sen = Capable of causing occupational asthma.

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Ingredient Comments
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 | Red. |

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

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information

This material is toxic.

Other Health Effects

Carcinogen Category 2. Mutagen Category 3. Toxic to Reproductive Health Category 2.

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Ingestion
Toxic if swallowed.

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

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

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 |
| UN No. (ICAO) | 3082 |

14.2. UN proper shipping name

| | |
|----------------------|---|
| Proper Shipping Name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COBALT DICHLORIDE) |
|----------------------|---|

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

Not applicable.

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 | 29/11/2013 |
| Revision | 4 |
| Supersedes date | 04/02/2013 |
| Safety Data Sheet Status | Approved. |
| Risk Phrases In Full | |
| R34 | Causes burns. |
| R22 | Harmful if swallowed. |
| R37 | Irritating to respiratory system. |
| R49 | May cause cancer by inhalation. |
| R42/43 | May cause sensitisation by inhalation and skin contact. |
| R60 | May impair fertility. |
| R68 | Possible risk of irreversible effects. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

RED 2 SOLUTION

Hazard Statements In Full

| | |
|-------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| 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. |
| H360F | May damage fertility. |
| 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.