



For the Life Scientist

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## MATERIAL SAFETY DATA SHEET According to EC Directive 91/155 EC Date: 01/08/10

### 1. Identification of the substance/preparation and of the company/undertaking

#### 1.1 Product Details:

Trade Names: AppGreen 1-Step Extreme Low ROX Kit  
AppGreen 1-Step Extreme High ROX Kit  
AppGreen 1-Step Opti Low ROX Kit  
AppGreen 1-Step Opti High ROX Kit

#### Catalogue Numbers:

ARP742  
ARP743  
ARP752  
ARP753  
ARP792  
ARP793  
ARP802  
ARP803

Kit Components: 1ml AppGreen 1-Step Extreme Low ROX Mix (2x)  
1ml AppGreen 1-Step Extreme High ROX Mix (2x)  
0.1ml 20x RTase (contains RNase inhibitor)  
1ml AppGreen 1-Step Opti Low ROX Mix (2x)  
1ml AppGreen 1-Step Opti High ROX Mix (2x)  
0.1ml 20x RTase Go (with RNase inhibitor)



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### 1.2 Company Details

Manufacturer/ Supplier:

Appleton Woods Ltd

Catesby Park

Kings Norton

Birmingham

B38 8SE

United Kingdom

Telephone +44 (0) 121 458 7740

Email [info@appletonwoods.co.uk](mailto:info@appletonwoods.co.uk)

Further Information Obtainable from: Technical Services

Details as above

### 1.3 Emergency Details

In case of emergency:

Appleton Woods Ltd

Catesby Park

Kings Norton

Birmingham

B38 8SE

United Kingdom

Telephone +44 (0) 121 458 7740



## \* 2 Hazards identification

- Classification of the substance or mixture
- **Classification according to Regulation (EC) No 1272/2008** The product is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void
- Information concerning particular hazards for human and environment:  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- Classification system:  
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
- Label elements
- Labelling according to EU guidelines:  
Observe the general safety regulations when handling chemicals  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).
- Safety phrases:  
35 This material and its container must be disposed of in a safe way.
- Other hazards
- Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## \* 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with non-hazardous additions.
- Dangerous components:  
CAS: 67-68-5  
EINECS: 200-664-3  
dimethyl sulfoxide 5-10%  
CAS: 56-81-5  
EINECS: 200-289-5  
glycerol 1.0-2.5%  
Eye Irrit. 2, H319  
1.0-2.5%
- **Additional information** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

- Description of first aid measures
- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Induce vomiting and call for medical help.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

## 5 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents
- CO<sub>2</sub>, extinguishing powder or water spray.  
Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- Advice for firefighters
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- Environmental precautions:  
Dilute with plenty of water.
- Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to item 13.
- Reference to other sections  
No dangerous substances are released.  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

- Handling
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## \* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- Control parameters
- **Components with limit values that require monitoring at the workplace:**  
**Proprietary Reagent RF I**  
WEL () Short-term value: 20 mg/m<sup>3</sup>  
Long-term value: 10 mg/m<sup>3</sup>  
**56-81-5 glycerol**  
WEL () Long-term value: 10 mg/m<sup>3</sup>
- **Additional information:** The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment
- General protective and hygienic measures  
The usual precautionary measures should be adhered to when handling chemicals.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves.
- **Material of gloves** Synthetic gloves
- Penetration time of glove material
- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- General Information
- Appearance:  
**Form:** Fluid

- **Colour:** Colourless
- **Odour:** Odourless
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.  
Change in condition
- **Melting point/Melting range:** undetermined
- **Boiling point/Boiling range:** 100°C
- **Flash point:** > 55°C
- **Flammability (solid, gaseous)** Not applicable.
- **Ignition temperature:** 270°C
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Product is not self igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- Explosion limits:  
**Lower:** 1.8 Vol %  
**Upper:** 63.0 Vol %
- **Vapour pressure at 20°C:** 23 hPa
- **Density:** Not determined
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.
- Solubility in / Miscibility with  
**Water:** Fully miscible
- **Segregation coefficient (n-octanol/water):** Not determined.
- Viscosity:  
**dynamic:** Not determined.  
**kinematic:** Not determined.
- Solvent content:  
**Organic solvents:** 12.0 %  
**Water:** 71.3 %  
**Solids content:** 16.7 %
- **Other information** No further relevant information available.

## 10 Stability and reactivity

- Reactivity
- Chemical stability
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
- LD/LC50 values that are relevant for classification:

- **67-68-5 dimethyl sulfoxide**
- Oral LD50 14500 mg/kg (rat)
- Primary irritant effect:
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- Additional toxicological information:
- The product is not subject to classification according to the calculation method of the General EU Classification Guidelines
- for Preparations as issued in the latest version:
- When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

## 12 Ecological information

- Toxicity
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- Behaviour in environmental systems:
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- Additional ecological information:
- General notes:
- Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- Waste treatment methods
- Recommendation
- Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- Maritime transport IMDG:
- Marine pollutant: No
- **Special precautions for user** Not applicable.
- **Transport/Additional information:** Not dangerous according to the above specifications.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- National regulations
- Technical instructions (air):  
**Class Share in %**  
NK 10-20
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.