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ReAgent

SAFETY DATA SHEET VeriGold Gold and Silver Test Solution

According to Regulation (EC) No 1907/2006

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME VeriGold Gold and Silver Test Solution

SUPPLIER Reagent Chemical Services
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PRODUCT NO. 2661

APPLICATION General chemical reagent

EMERGENCY TELEPHONE Emergency Telephone : +44 (0) 1928 716903 Between 08.30 - 17.00

2 HAZARDS IDENTIFICATION

Causes severe burns.

CLASSIFICATION (1999/45) C;R35.

ENVIRONMENT

Although not classified as harmful to the environment the material should not be discharged to land or water systems, this may have an impact on the organisms in the local area. The product is water miscible, mobile in the aquatic environment and groundwater, it will spread in water systems. The Environment Agency or other regulatory body must be informed of large or uncontrolled discharges to land or water.

PHYSICAL AND CHEMICAL HAZARDS

Exothermic reaction with alkalis. Very corrosive to skin and eyes. Will corrode metal surfaces on sustained or repeated contact. If vapours are produced in enclosed spaces do not use without respiratory protection. Avoid contact with materials as specified in section 10.

HUMAN HEALTH

See section 11 for additional information on health hazards.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification (67/548)
NITRIC ACID ...%	231-714-2	7697-37-2	60-100%	O;R8 C;R35

The Full Text for all R-Phrases are Displayed in Section 16

COMPOSITION COMMENTS

An aqueous mixture of nitric acid.

4 FIRST-AID MEASURES

GENERAL INFORMATION

CAUTION! First aid personnel must be aware of own risk during rescue! Always consider any dangers in the vicinity before approaching to treat the casualty. First aid personnel must protect themselves with all necessary personal protective equipment during the assistance of casualties. When breathing is difficult, properly trained personnel may assist the casualty by administering oxygen. Place unconscious person on the side in the recovery position and ensure breathing can take place. Never give anything by mouth to an unconscious person. If casualty needs to be resuscitated avoid mouth to mouth contact, use a mechanical device such as a bag and mask to provide artificial respiration. If medical attention is required take this information sheet with the casualty.

INHALATION

Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. In case of severe exposure or if any discomfort continues get medical attention.

INGESTION

Do not induce vomiting. Immediately rinse mouth and drink plenty of water. Get medical attention immediately!

SKIN CONTACT

Immediately remove contaminated clothing and wash before re-use. Rinse the skin immediately with lots of water. Get medical attention immediately.

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EYE CONTACT

May cause permanent damage if eye is not immediately irrigated. Promptly wash eyes with plenty of water or eye wash solution while lifting the eyelids. If possible remove any contact lenses and continue to wash. Get medical attention immediately.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

The product is non-combustible. The product may promote the spread of fire due to the supply of oxygen. Use fire-extinguishing media appropriate for surrounding materials.

SPECIAL FIRE FIGHTING PROCEDURES

Prevent run-off from entering drains and watercourses. Be aware of dangers from other hazardous substances in the immediate area.

SPECIFIC HAZARDS

In case of fire, toxic and corrosive gases may be formed. Oxides of nitrogen.

PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Use respiratory protection if spillages occur in enclosed spaces.

ENVIRONMENTAL PRECAUTIONS

Do not discharge into drains, water courses or onto the ground. Clean up any spillages immediately, prevent material from spreading and entering drains or sewage systems. Large spillages or uncontrolled discharge to water systems must be alerted to the Environmental Agency or other regulatory body. If the mixture has entered a foul drain or sewage system in significant amounts to cause a hazard then the local water treatment company must be informed. If spillages to land cannot be treated safely or if contamination will occur the Environment Agency must be alerted immediately.

SPILL CLEAN UP METHODS

Small Spillages: Absorb with inert, non-combustible material. Large Spillages: Dam and absorb spillages with sand, earth or other inert, non-combustible material. Collect spillage in sealable containers. Neutralise with aqueous soda ash slurry (CAUTION - VIGOROUS REACTION, HEAT GENERATED) and leave for 24 hours before sealing tightly. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Deliver for disposal according to local regulations. Wash spillage site well with water and detergent, be aware of the potential for surfaces to become slippery. Wash thoroughly after dealing with a spillage.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid inhalation of vapours/spray and contact with skin and eyes. Do not eat, drink or smoke when handling. Never add water to acid! Read and follow manufacturer's recommendations.

STORAGE PRECAUTIONS

Store in closed original container at temperatures between 15°C and 25°C. Store away from heat, direct sunlight and moisture. Store away from incompatible materials. Store away from combustible materials. When storing large amounts of the product it is advisable to use some form of containment such as a sump pallet or storage trays.

STORAGE CLASS

Corrosive storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
NITRIC ACID ...%	WEL	2 ppm	5.2 mg/m ³	4 ppm	10 mg/m ³	

WEL = Workplace Exposure Limit.

ENGINEERING MEASURES

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined workplace exposure limit (WEL) is not exceeded. If vapours or mists are generated, work in a fume cupboard.

RESPIRATORY EQUIPMENT

Wear suitable respiratory protection if vapours or mists are generated. Consult with the supplier as to the compatibility of the equipment with the chemical of concern. CAUTION: Air purifying respirators do not protect the user in oxygen deficient atmospheres, use air supplied system.

HAND PROTECTION

Use full length gloves. Butyl rubber. Viton rubber (fluor rubber). Be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear approved safety goggles.

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OTHER PROTECTION

Wear suitable protective clothing as protection against splashing or contamination. Provide eyewash station and safety shower. If there is a risk of splashing then wear a face shield. Wear plastic apron and full length gloves if handling large amounts.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes wet or contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid		
COLOUR	Colourless to pale yellow		
ODOUR	Pungent		
SOLUBILITY	Miscible with water		
RELATIVE DENSITY	Approx. 1.3 - 1.4 20	pH-VALUE, CONC. SOLUTION	<1

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Avoid heat and freezing conditions. Reacts with alkalis and generates heat.

HAZARDOUS POLYMERISATION

Will not polymerise.

MATERIALS TO AVOID

Combustible materials Oxidizable substances Bases. Acids. Cyanides Metals. Organic solvents. Organic nitro compounds. Alcohols, glycols. Aldehydes. Amines. Ketones Hydrides

HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of: Nitrogen.

11 TOXICOLOGICAL INFORMATION

INHALATION

Corrosive. Causes coughing and dyspnoea. May cause pulmonary oedema. Vapours may cause damage to mucous membranes.

INGESTION

Corrosive. Even small amounts may cause serious damage. Causes burns to the mouth, throat, oesophagus and gastrointestinal tract. Severe pain with risk of perforation. Bloody vomiting and possibly death.

SKIN CONTACT

Causes severe burns.

EYE CONTACT

Strongly corrosive. Causes severe burns and serious eye damage. Immediate first aid is imperative.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms. Ecological effects cannot be excluded in the event of improper handling or disposal. The product will be absorbed into soil which may have an effect on organisms in the immediate area. Do not allow to enter drinking water, waste water or soil.

MOBILITY

The product is miscible with water and may spread in water systems. Small amounts of acid will be absorbed by the soil and neutralised by carbonates in the soil however larger amounts of acid will travel through groundwater.

ACUTE FISH TOXICITY

LC50>500mg/L (Nitrates).

13 DISPOSAL CONSIDERATIONS

GENERAL INFORMATION

Any waste material is classed as hazardous waste, it should only be disposed of through licenced waste handlers and treatment sites. Do not allow unauthorised disposal to the environment. Provide sufficient ventilation and appropriate extraction during disposal to avoid the WEL being exceeded. If disposal is taking place in a confined space and vapours are exceeding the WEL wear suitable respiratory protection or stop the disposal process. Allow the vapours to disperse.

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements. Avoid unauthorised disposal. Do not dump illegally onto land or into water.

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14 TRANSPORT INFORMATION



UK ROAD CLASS	8		
PROPER SHIPPING NAME	NITRIC ACID SOLUTION		
UN NO. ROAD	2031	UK ROAD PACK GR.	II
ADR CLASS NO.	8	ADR CLASS	Class 8: Corrosive substances.
ADR PACK GROUP	II	TUNNEL RESTRICTION CODE	(E)
HAZARD No. (ADR)	80	ADR LABEL NO.	8
HAZCHEM CODE	2R	RID CLASS NO.	8
RID PACK GROUP	II	UN NO. SEA	2031
IMDG CLASS	8	IMDG PACK GR.	II
EMS	F-A, S-B	UN NO. AIR	2031
AIR CLASS	8	AIR PACK GR.	II

15 REGULATORY INFORMATION

LABELLING



Corrosive

RISK PHRASES

R35 Causes severe burns.

SAFETY PHRASES

S24/25 Avoid contact with skin and eyes.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
 S60 This material and its container must be disposed of as hazardous waste.

EU DIRECTIVES

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, including amendments.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health.

GUIDANCE NOTES

Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (CHIP 4)

16 OTHER INFORMATION

GENERAL INFORMATION

This datasheet is not intended to be a replacement for a full risk assessment, these should always be carried out by competent persons. Under REACH Material Safety Datasheets (MSDS) are referred to as Safety Datasheets (SDS).

INFORMATION SOURCES

Raw material safety data sheets. ESIS Database Web-based literature.

REVISION COMMENTS

General rewrite

REVISION DATE 30/06/2010

REV. NO./REPL. SDS GENERATED 2

SDS NO. 11579

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SAFETY DATA SHEET STATUS

Approved.

RISK PHRASES IN FULL

R35 Causes severe burns.

R8 Contact with combustible material may cause fire.