Material Safety Data Sheet

Section 1: Chemical Product and Company Information

Identity: Starna CellClean Cell Identity: none

Chemical Family: Mixture

Chemical use: concentrated cleaning Solution

Manufactured by: Starna Scientific Ltd, 52/54 Fowler Road, Hainault, Essex IG6 3UT, UK

Phone: +44 (0)20 8501 5550 Date of preparation: 1st of June 2012

Prepared by: John P. Hammond CSci CChem FRSC; support@starna.com



Section 2: Hazards Identification

Emergency Overview:

Pale yellow aqueous solution with a slight ammonia odour. Non-flammable aqueous solution. NFPA rating of zero. No immediate hazards associated with the product.

Route of Entry - Inhalation:

Prolonged or repeated contact may cause irritation

Route of Entry - Skin:

Prolonged or repeated contact may cause irritation

Route of Entry - Eye:

Prolonged or repeated contact may cause irritation

Route of Entry - Ingestion:

No hazard in normal industrial use.

Health Hazard acute and chronic: Not determined

Signs and symptoms of exposure:

Eye and or skin irritation (redness or swelling)

Medical Conditions aggravated by exposure:

Not determined

Section 3: Composition

Ingredients (W/W)

Water

CAS Number: 7732-18-5 EEC Hazard Identity: --

Concentration Range: --

Glycine, N, N'-1,2-ethanediybis-(N-(carboxymethyl)-,

tetra-sodium salt

CAS Number: 64-02-8
EEC Hazard Identity: Xi, R-36, R-38
Concentration Range: less than 20%

Benzenesulfonic acid, dimethyl-, ammonium salt

CAS Number: 26447-10-9
EEC Hazard Identity: Xi, R-36, R-38>
Concentration Range: less than 20%

Benzenesulfonic acid, dodecyl-, cpd. With 2, 2', 2"-nitrilotris (ethanol)

CAS Number: 27323-41-7
EEC Hazard Identity: Xi, R-36, R-38
Concentration Range: less than 20%

Poly (oxy-1,2-ethanediyl),

alpha-(undecyl)-omega-hydroxy

CAS Number: 34398-01-1
EEC Hazard Identity: Xi, R-36
Concentration Range: less than 20%>

Section 4: First Aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion: No specific treatment is necessary since this material is not likely to be hazardous by ingestion.

Skin Contact: Remove contaminated clothing. Wash skin with soap and water. Seek medical attention if irritation develops or persists.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention if irritation develops or persists.

Section 5: Fire Fighting Measures

Suitable extinguishing agents:

Carbon Dioxide, extinguishing powder, or water jet

Protective equipment: Wear full protective clothing, and a self-contained breathing apparatus.

Section 6: Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in section 8.

Spill: Collect using liquid absorber. Dispose of contaminated product by usual procedure.

Section 7: Handling and Storage

Handling: Avoid contact with eyes, skin and clothing. Use in a well-ventilated area.

Storage: Store in a cool place in original container and protect from sunlight. Keep container closed when not in use. Use only stainless steel, polyethylene or plastic-lined containers for handling. Do not store in contact with aluminium, zinc, copper or their alloys.

Storage Temperature: -5 to 43 °C

Section 8:

Exposure Controls, Personal Protection

Respiratory Protection: For most situations, no respiratory protection should be needed.

Ventilation: For most situations, no respiratory protection should be needed.

Protective Gloves: Chemical resistant gloves.

Eye Protection: Chemical resistant goggles, Contact lenses should not be worn.

Other protective equipment:

Have immediate availability of eyewash.



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Section 9: Physical and Chemical Properties

Appearance: Yellow liquid. Odour: Amonia odour pH (undiluted): ca. 9.5 Boiling Point: 100 °C Specific Gravity: 1.135 Vapour Pressure (mm Hg): n/a

Melting Point: 0 °C Vapour Density: n/a Evaporation Rate: n/a Solubility in Water: soluble

Fire and Explosion Hazard:

Flash Point: n/a

Flammable Limits: non-flammable

Section 10: Stability and Reactivity

Stability: stable under normal operating conditions.

Conditions to avoid:

Avoid contact with incompatible materials if broken

Incompatible Materials: May etch aluminium and zinc. Do not mix with other cleaners. Mixing with chlorine-based cleaners may produce toxic gasses.

Hazardous Decomposition Products:

Hazardous Polymerization:

Section 11: Toxicology Information

Eye: Irritant per USA-PHSA criteria. Not an irritant per OECD Guideline No. 405 Skin: Not an irritant per USA-PHSA criteria. Not an irritant per OECD Guideline No. 404 Oral, rat LD50 = greater than 5000 mg/kg.

Section 12: Ecological Information

Contains no CFCs, ODCs, phosphates, silicates, borates, halogens, or phenols

Section 13: Disposal Considerations

Starna CellClean is not considered a hazardous waste under Federal Hazardous Waste Regulations 40 CFR 261. Please be advised, however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

Note: Chemical additions, processing or otherwise altering this material may make the waste management information presented on this MSDS incomplete, inaccurate, or otherwise inappropriate.

Section 14: Transport Information

Land Transport:

ARD/RID and GGVS/GGVE (cross-border/domestic) -

ADR/RID-GGVS/E Class: None

Maritime Transport:

IMDG/GGVSea - IMDG/GGVSea Class: None

Air Transport

ICAO-TI and IATA-DGR - ICAO/IATA Class: None

Section 15: Regulatory Information

Designed according to EC guidelines:

Observe the normal safety regulations when handling chemicals. This 'sealed-cell' reference is not subject to classification according to EC lists and other sources of literature known to us. The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (German GefStoffV).

Section 16: Other Information

Other: none.

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