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

1.1 Product identifier.

Product Name: Sodium metaperiodate ACS
Product Code: 111850
Chemical Name: Sodium periodate
CAS No: 7790-28-5
EC No: 232-197-6
Registration No: 01-2119980983-20-XXXX

1.2 Relevant identified uses of the substance and uses advised against.

For manufacturing, processing, laboratory or repacking use only

Uses advised against:
Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: DC FINE CHEMICALS Ltd.
Address: Hill Top, 88
City: NW11 6DY London (United Kingdom)
Telephone: +44 (20) 7586 6800
Fax: +44 (20) 7504 1701
E-mail: info@dcfinechemicals.com
Web: www.dcfinechemicals.com

1.4 Emergency telephone number:
(Only available during office hours; Monday-Friday; 08:00-18:00)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance.
In accordance with Regulation (EU) No 1272/2008:
Aquatic Acute 1: Very toxic to aquatic life.
Ox. Sol. 1: May cause fire or explosion; strong oxidiser.
Skin Corr. 1C: Causes severe skin burns and eye damage.
STOT RE 1: Causes damage to organs.

2.2 Label elements.

Labelling in accordance with Regulation (EU) No 1272/2008:
Pictograms:

Signal Word: Danger
H statements:
H271 May cause fire or explosion; strong oxidiser.
H314 Causes severe skin burns and eye damage.
H372 Causes damage to organs.
H400 Very toxic to aquatic life.

P statements:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
P310  Immediately call a POISON CENTER/doctor.
P371+P380+P375  In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P420  Store separately.

Contains:
Sodium metaperiodate

2.3 Other hazards.
In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment. PBT Substance (Persistent, Bioaccumulative and Toxic) and vPvB (very Persistent and very Bioaccumulative).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.
Chemical Name: [2] [3] Sodium periodate  
CAS No: 7790-28-5  
EC No: 232-197-6  
Registration No: 01-2119980983-20-XXXX  
[3] vPvB Substance (very Persistent and very Bioaccumulative).

3.2 Mixtures.
Not Applicable.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.
Delayed effects may occur after the exposure to the product.

Inhalation.
Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.
Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Do not let the person to rub the affected eye.

Skin contact.
Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners. The use of personal protective equipment is recommended for people providing first aid (see section 8).

Ingestion.
If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed.
Corrosive Product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage, if this occurs immediate medical assistance is required.
Long-term chronic exposure may result in injury to certain organs or tissues.

4.3 Indication of any immediate medical attention and special treatment needed.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Keep the person comfortable. Turn him/her over to the left side and stay there while waiting for medical care.

SECTION 5: FIREFIGHTING MEASURES.

5.1 Extinguishing media.
Suitable extinguishing media:
Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

**Unsuitable extinguishing media:**
Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

**5.2 Special hazards arising from the substance.**

**Special risks.**
Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

**5.3 Advice for firefighters.**
Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways. Product residues and extinguishing media may contaminate the aquatic environment.

**Fire protection equipment.**
According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

**SECTION 6: ACCIDENTAL RELEASE MEASURES.**

**6.1 Personal precautions, protective equipment and emergency procedures.**
For exposure control and individual protection measures, see section 8.

**6.2 Environmental precautions.**
Product dangerous for the environment, in case of large spills or if the product contaminates lakes, rivers, or sewers, inform the responsible authorities according to local legislation. Prevent the contamination of drains, surface or subterranean waters, and the ground.

**6.3 Methods and material for containment and cleaning up.**
The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

**6.4 Reference to other sections.**
For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.

**SECTION 7: HANDLING AND STORAGE.**

**7.1 Precautions for safe handling.**
For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers. In the application area, smoking, eating, and drinking must be prohibited.
Follow legislation on occupational health and safety.
Keep the product in containers made of a material identical to the original.

**7.2 Conditions for safe storage, including any incompatibilities.**
Store according to local legislation. Observe indications on the label. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.
Classification and threshold amount of storage in accordance with Annex I to Directive 2012/18/EU (SEVESO III):

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Lower-tier requirements</th>
<th>Upper-tier requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>P8</td>
<td>OXIDISING LIQUIDS AND SOLIDS</td>
<td>50</td>
<td>200</td>
</tr>
</tbody>
</table>

**7.3 Specific end use(s).**
Not available.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

Measures of a technical nature:
Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

<table>
<thead>
<tr>
<th>Concentration:</th>
<th>100 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses:</td>
<td>For manufacturing, processing, laboratory or repacking use only</td>
</tr>
<tr>
<td>Breathing protection:</td>
<td>If the recommended technical measures are observed, no individual protection equipment is necessary.</td>
</tr>
<tr>
<td>Hand protection:</td>
<td></td>
</tr>
<tr>
<td><strong>PPE:</strong></td>
<td>Protective gloves.</td>
</tr>
<tr>
<td><strong>Characteristics:</strong></td>
<td>«CE» marking, category II.</td>
</tr>
<tr>
<td><strong>CEN standards:</strong></td>
<td>EN 374-1, EN 374-2, EN 374-3, EN 420</td>
</tr>
<tr>
<td><strong>Maintenance:</strong></td>
<td>Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible.</td>
</tr>
<tr>
<td><strong>Observations:</strong></td>
<td>Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.</td>
</tr>
<tr>
<td><strong>Material:</strong></td>
<td>PVC (polyvinyl chloride)</td>
</tr>
<tr>
<td><strong>Breakthrough time (min.):</strong></td>
<td>&gt; 480</td>
</tr>
<tr>
<td><strong>Material thickness (mm):</strong></td>
<td>0,35</td>
</tr>
<tr>
<td><strong>Eye protection:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PPE:</strong></td>
<td>Face shield.</td>
</tr>
<tr>
<td><strong>Characteristics:</strong></td>
<td>«CE» marking, category II. Face and eye protector against splashing liquid.</td>
</tr>
<tr>
<td><strong>CEN standards:</strong></td>
<td>EN 165, EN 166, EN 167, EN 168</td>
</tr>
<tr>
<td><strong>Observations:</strong></td>
<td>Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer’s instructions. Make sure that mobile parts move smoothly.</td>
</tr>
<tr>
<td><strong>Skin protection:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PPE:</strong></td>
<td>Protective clothing.</td>
</tr>
<tr>
<td><strong>Characteristics:</strong></td>
<td>«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user’s movements.</td>
</tr>
<tr>
<td><strong>CEN standards:</strong></td>
<td>EN 340</td>
</tr>
<tr>
<td><strong>Maintenance:</strong></td>
<td>In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.</td>
</tr>
<tr>
<td><strong>Observations:</strong></td>
<td>The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user’s level of activity and the expected time of use.</td>
</tr>
<tr>
<td><strong>PPE:</strong></td>
<td>Work footwear.</td>
</tr>
<tr>
<td><strong>Characteristics:</strong></td>
<td>«CE» marking, category II.</td>
</tr>
<tr>
<td><strong>CEN standards:</strong></td>
<td>EN ISO 13287, EN 20347</td>
</tr>
<tr>
<td><strong>Maintenance:</strong></td>
<td>This product adapts to the first user’s foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.</td>
</tr>
<tr>
<td><strong>Observations:</strong></td>
<td>Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident</td>
</tr>
</tbody>
</table>

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.
Appearance: Solid
Colour: N.A./N.A.
Odour: N.A./N.A.
Odour threshold: N.A./N.A.
11.2 Other information.
Pour point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A. = Not Available/Not Applicable due to the nature of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.
If the storage conditions are satisfied, does not produce dangerous reactions.

10.2 Chemical stability.
Unstable in contact with:
- Bases.

10.3 Possibility of hazardous reactions.
May cause fire or explosion; strong oxidiser.
Neutralization can occur on contact with bases.

10.4 Conditions to avoid.
Avoid the following conditions:
- Contact with incompatible materials.
- Avoid contact with bases.

10.5 Incompatible materials.
Avoid the following materials:
- Bases.
- Flammable materials.
- Explosives materials.
- Toxic materials.
- Corrosive materials.

10.6 Hazardous decomposition products.
Depending on conditions of use, can be generated the following products:
- Oxygen.
- Corrosive vapors or gases.
- Oxidizing gases or vapors.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.
There are no tested data available on the product. Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

a) acute toxicity;
Not conclusive data for classification.

b) skin corrosion/irritation;
Product classified:
Skin Corrosive, Category 1C: Causes severe skin burns and eye damage.

c) serious eye damage/irritation;
Not conclusive data for classification.

d) respiratory or skin sensitisation;
Not conclusive data for classification.

e) germ cell mutagenicity;
Not conclusive data for classification.

f) carcinogenicity;
Not conclusive data for classification.

g) reproductive toxicity;
Not conclusive data for classification.

h) STOT-single exposure;
Not conclusive data for classification.

i) STOT-repeated exposure;
Product classified:
Specific target organ toxicity following a repeated exposure, Category 1: Causes damage to organs.

j) aspiration hazard;
Not conclusive data for classification.

12.1 Toxicity.

<table>
<thead>
<tr>
<th>Name</th>
<th>Ecotoxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium periodate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic invertebrates</td>
<td>EC50</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>IC50</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability.

There is no information available on the degradability of the substances present. No information is available regarding the degradability:PBT Substance (Persistent, Bioaccumulative and Toxic) and vPvB (very Persistent and very Bioaccumulative).

12.3 Bioaccumulative potential.
No information is available regarding the bioaccumulation.
12.4 Mobility in soil.
No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.
PBT Substance (Persistent, Bioaccumulative and Toxic) and vPvB (very Persistent and very Bioaccumulative), according to assessment made in the Chemical Safety Report, substance meets criteria to be considered PBT and vPvB.

12.6 Other adverse effects.
No information is available about other adverse effects for the environment.

SECTION 13 DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.
Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

SECTION 14: TRANSPORT INFORMATION.

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA for air transport.

**Land:** Transport by road: ADR, Transport by rail: RID.
Transport documentation: Consignment note and written instructions

**Sea:** Transport by ship: IMDG.
Transport documentation: Bill of lading

**Air:** Transport by plane: ICAO/IATA.
Transport document: Airway bill

14.1 UN number.
UN No: UN3085

14.2 UN proper shipping name.
Description:
ADR: UN 3085, OXIDIZING SOLID, CORROSIVE, N.O.S. (CONTAINS SODIUM PERIODATE / SODIUM PERIODATE), 5.1 (8), PG I, (E)
IMDG: UN 3085, OXIDIZING SOLID, CORROSIVE, N.O.S. (CONTAINS SODIUM PERIODATE / SODIUM PERIODATE), 5.1 (8), PG I, MARINE POLLUTANT
ICAO/IATA: UN 3085, OXIDIZING SOLID, CORROSIVE, N.O.S. (CONTAINS SODIUM PERIODATE / SODIUM PERIODATE), 5.1 (8), PG I

14.3 Transport hazard class(es).
Class(es): 5.1

14.4 Packing group.
Packing group: I

14.5 Environmental hazards.
Marine pollutant: Yes

Dangerous for the environment

14.6 Special precautions for user.
Labels: 5.1, 8
Hazard number: Not applicable.
ADR LQ: 0
IMDG LQ: 0
ICAO LQ: 0

Provisions concerning carriage in bulk ADR: Not authorized carriage in bulk in accordance with ADR.
Transport by ship, FEm – Emergency sheets (F – Fire, S – Spills): F-A,S-Q
Proceed in accordance with point 6.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.
The product is not transported in bulk.

SECTION 15: REGULATORY INFORMATION.

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

Product classification according to Annex I of Directive 2012/18/EU (SEVESO III): P8
The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.
The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Classification codes:
Aquatic Acute 1 : Acute toxicity to the aquatic environment, Category 1
Ox. Sol. 1 : Oxidising solid, Category 1
Skin Corr. 1C : Skin Corrosive, Category 1C
STOT RE 1 : Specific target organ toxicity following a repeated exposure, Category 1

Sections changed compared with the previous version:
1,2,3,4,5,6,7,9,10,11,12,14,16

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CEN: European Committee for Standardization.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

Key literature references and sources for data:
http://eur-lex.europa.eu/homepage.html
http://echa.europa.eu/


The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.

-End of safety data sheet.-