Vanadomolybdate Solution

Date 1.2.2013 Previous date: -

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

1.1 Product identifier

1.1.1 Commercial Product Name

Vanadomolybdate Solution

1.1.2 Product code

FF2013 5 L

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Recommended use

Laboratory chemical.

1.3 Details of the supplier of the safety data sheet

1.3.1 Supplier

Oy FF-Chemicals Ab
Street address Teollisuustie 4
Postcode and post office FI-90830 Haukipudas
Finland
Telephone +358 8 5563 193
Telefax +358 8 5563 194
Email ffc@ff-chemicals.fi

1.4 Emergency telephone number

1.4.1 Telephone number, name and address

Please contact the Emergency Centre in your own country.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 1999/45/EC: Causes burns.

1272/2008 (CLP)

Skin Corr. 1B, H314

67/548/EEC - 1999/45/EC

C; R35

2.2 Label elements

1272/2008 (CLP)

GHS05

Signal word **Danger**

Hazard Statements

H314 Causes severe skin burns and eye damage.

Precautionary Statements

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

2.3 Other hazards

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

CAS/EC and Reg. number	Chemical name of the substance	Concentration	Classification
7697-37-2	Nitric acid	< 10 %	O; R8;C; R35; Ox. Liq. 3, H272; Skin Corr. 1A, H314
12027-67-7	Ammonium heptamolybdate	2 %	Xn; R22; Xi; R36/37/38; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335
7803-55-6	Ammonium metavanadate	0.1 %	T; R25-26; Xi; R36/37/38; Acute Tox. 3, H301; Acute Tox. 1, H330; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Muta 2, H341

4. FIRST AID MEASURES

4.1 Description of first aid measures
Move the exposed person out from the contaminated area. Immediately take off contaminated clothing. Wear personal protective equipment.

4.1.2 Inhalation
Move the exposed to fresh air.
In case of troubles with breathing, use respirator. Move the patient to fresh air. Keep warm and at rest. Call in medical personnel. Give artificial respiration if breathing stops.

4.1.3 Skin contact
Wash with plenty of soap and water. Rinse cautiously with water for several minutes. Remove/Take off immediately all contaminated clothing. Immediately contact medical aid.

4.1.4 Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Contact an ophthalmologist.

4.1.5 Ingestion
Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed
Causes severe caustic burns to skin and eyes.

4.3 Indication of immediate medical attention and special treatment needed
IF exposed or concerned: Immediately call a POISON CENTER or doctor/physician.

5. FIREFIGHTING MEASURES

Non-combustible.

5.1 Extinguishing media

5.1.1 Suitable extinguishing media
Extinguishing media should be suitable to surrounding materials.

5.2 Special hazards arising from the substance or mixture
Toxic combustion gases may be liberated in event of fire.

5.3 Advice for firefighters
Fire fighters have to wear a pressurized respirator and chemical protection suit.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Evacuate the area. Wear personal protective equipment. Adequate ventilation needed. Avoid breathing vapours and mist.

6.2 Environmental precautions
Prevent leakage into sewers, soil, and waters.

6.3 Methods and materials for containment and cleaning up
Absorb in appropriate material. Pick up in containers for waste treatment. Clean contaminated surfaces. Ventilate the area.

6.4 Reference to other sections
4, 8, 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Prevent emissions of vapour and mists in air. Avoid inhalation of vapours and mist. Avoid contact with skin, eyes or clothing. Use personal protective equipment and local exhaust.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed.

7.3 Specific end use(s)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Threshold limits

Nitric acid	0.5 ppm (8 h) 1.3 mg/m^3 (8 h)	1 ppm (15 min) 2.6 mg/m^3 (15 min)

8.1.2 Other information on limit values
The values above are Finnish OEL values.

8.1.3 Limit values in other countries
-

8.1.4 DNELs
No information available.

8.1.5 PNECs
No information available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls
Obey good laboratory practices, good hygiene and safety guidelines. Adequate ventilation needed. Immediately take off contaminated clothing and wash before reuse. Wash hands after handling. Emergency shower and eyewash equipment should be available.

8.2.2 Individual protection measures

8.2.2.1 Respiratory protection
Respirator. Filter B2-P3.

8.2.2.2 Hand protection
Protective gloves complying with EN 374. Material eg nitrile, butyl rubber, neoprene.

8.2.2.3 Eye/face protection
Tightly fitting goggles or whole mask (EN 166).

8.2.2.4 Skin protection
Protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Important Health Safety and Environmental Information

9.1.1 Appearance
Liquid.

9.1.2 Odour N/I

9.1.3	**Odour threshold**	N/I
9.1.4	**pH**	N/I
9.1.5	**Melting point/freezing point**	N/I
9.1.6	**Initial boiling point and boiling range**	N/I
9.1.7	**Flash point**	Not applicable.
9.1.8	**Evaporation rate**	N/I
9.1.9	**Flammability (solid, gas)**	Not applicable.
9.1.10	**Explosive properties**	
9.1.10.1	**Lower explosion limit**	-
9.1.10.2	**Upper explosion limit**	-
9.1.11	**Vapour pressure**	N/I
9.1.12	**Vapour density**	N/I
9.1.13	**Relative density**	N/I
9.1.14	**Solubility(ies)**	
9.1.14.1	**Water solubility**	Freely soluble in water.
9.1.15	**Partition coefficient: n-octanol/water**	-
9.1.16	**Auto-ignition temperature**	Not applicable.
9.1.17	**Decomposition temperature**	N/I
9.1.18	**Viscosity**	N/I
9.1.19	**Explosive properties**	N/I
9.1.20	**Oxidising properties**	N/I
9.2	**Other information**	

10. STABILITY AND REACTIVITY

10.1 **Reactivity**
No information available.

10.2 **Chemical stability**
Stable in normal conditions.

10.3 **Possibility of hazardous reactions**
No information available.

10.4 **Conditions to avoid**
Strong heating.

10.5 **Incompatible materials**
No information available.

10.6 **Hazardous decomposition products**
No information available.

11. TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects**

11.1.1 **Acute toxicity**
No hazard classification. Acute toxicity low.

11.1.2 **Irritation and corrosion**
Causes severe skin burns and eye damage.

11.1.3 **Sensitisation**
No hazard classification.

11.1.4 **Subacute, subchronic and prolonged toxicity**
No hazard classification.

11.1.5 STOT-single exposure
No hazard classification.

11.1.6 STOT-repeated exposure
No hazard classification.

11.1.7 Aspiration hazard
Not classified.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.1.1 Aquatic toxicity
Ecological impacts have not been fully examined.
No hazard classification.

12.2 Persistence and degradability

12.2.1 Biodegradation
No information available.

12.3 Bioaccumulative potential
No information available.

12.4 Mobility in soil
Mobile, water solution.

12.5 Results of PBT and vPvB assessment
-

12.6 Other adverse effects

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Dispose of contents/container in accordance of local and national regulations.

14. TRANSPORT INFORMATION

	Land transport ADR/RID	**Sea transport IMDG/IMO**	**Air transport ICAO/IATA**
14.1 UN number	3264	3264	
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(nitric acid)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(nitric acid)	
14.3 Transport hazard class(es)	8	8	
14.4 Packing group	III	III	
14.5 Environmental hazards			
Other information			

14.6 Special precautions for users

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
REACH regulation, CLP regulation (EC).
Finnish Occupational Exposure Limit values.

15.2 Chemical safety assessment
-

16. OTHER INFORMATION

16.3 Key literature references and sources for data
Harmonised classification according to CLP regulation. ECHA C&L Inventory.

16.4 Classification procedure
CLP Regulation (1272/2008/EY)

16.5 List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements

R8	Contact with combustible material may cause fire.
R22	Harmful if swallowed.
R25	Toxic if swallowed.
R26	Very toxic by inhalation.
R35	Causes severe burns.
R36/37/38	Irritating to eyes, respiratory system and skin.
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

16.6 Training advice
Appropriate handling of hazardous substances.

16.7 Recommended restrictions
Access only for qualified personnel.

16.8 Additional information available from:
Oy FF-Chemicals Ab, Finland, Tel: 0358 (0)8 5563; ffc@ff-chemicals.fi

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.