 MODERNWATER	<p style="text-align: center;">SDS</p> <p style="text-align: center;">Safety Data Sheet According to Regulation (EC) No. 1907/2006</p>	Document No.: MSDS004 Version No.: 03 Effective Date: 01 Jan 2016
Mercury Standard and Plate (Film) Solutions		

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1 Product Identifiers

Product name : Mercury Standard Solution, Mercury Plate Solution
Product number : R-300-20STHG-01, R-100-51STHG-01, R-100-51STHG-500, R-100-51STHG-250
R-300-025PLA-HG, R-100-051PLA-HG
Substance name : Mercury Standard, 20ppm, 1ppm, 500ppb, and 250ppb. Mercury Plating Solution.
REACH reg no. : This product is exempt from registration, insufficient annual volume.

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

Identified uses : Reagent for analysis

1.3 Details of the supplier of the safety data sheet

Company : Modern Water Monitoring Limited
: Units 15-17 Cambridge Science Park
: Cambridge, CB4 0FQ
: UK
Email : info@modernwater.co.uk

1.4 Emergency telephone number

+44 (0) 1483 696030

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin irritation (Category 2)

Eye irritation (Category 2)

2.2 Label elements

Hazard pictogram



Signal Word: Warning

Hazard statements:

H320	Causes eye irritation
H315	Causes skin irritation

Precautionary statements:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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2.3 Other hazards : Not known



MODERNWATER

SDS

Safety Data Sheet
According to Regulation (EC) No.
1907/2006

Document No.: MSDS004
Version No.: 03
Effective Date: 01 Jan 2016

Mercury Standard and Plate (Film) Solutions

Page 2 of 8

SECTION 3: Composition/information on ingredients

3.1 Substance : Not relevant, see 3.2 Mixtures

3.2 Mixtures

Hazardous ingredients classification according to Regulation (EC) No. 1272/2008 CLP

Substance name	Concentration	CAS No	EC No
Mercury dinitrate	<0.01%	10045-94-0	233-152-3
H272 – may intensify fire; oxidiser			
H300+H310+H330 – Fatal if swallowed in contact with skin, or inhaled			
H373 – may cause damage to organs through prolonged or repeated exposure			
H410 – very toxic to aquatic life with long lasting effects			
Nitric acid	2-3%	7697-37-2	231-714-2
H272 – may intensify fire; oxidiser			
H314 – causes severe skin burns and eye damage			

SECTION 4: First Aid measures

4.1 Description of first aid measure

General advice: When in doubt or if symptoms observed, get medical advice. Show this safety data sheet to the doctor in attendance.

After Inhalation: Remove casualty to fresh air and keep warm. If breathing difficult or respiratory tract irritation get medical assistance. If not breathing, give artificial respiration and get urgent medical assistance.

In case of skin contact: Remove contaminated clothing. Wash off with soap and plenty of water. Get medical assistance.

After eye contact: Rinse thoroughly with plenty of water for at least 15 minutes. Remove contact lenses. Get urgent medical assistance.

In case of ingestion: If accidentally swallowed rinse mouth with plenty of water (only if person is conscious). Do not induce vomiting. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

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MODERNWATER

SDS

Safety Data Sheet
According to Regulation (EC) No.
1907/2006

Document No.: MSDS004
Version No.: 03
Effective Date: 01 Jan 2016

Mercury Standard and Plate (Film) Solutions

Page 3 of 8

SECTION 5: Fire-fighting measures.

5.1 Extinguishing media:

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

No restriction

5.2 Special hazards arising from the substance or mixture

Possible generation of Nitrogen oxide (NO_x) fumes

5.3 Advice for firefighters

Wear self-contained breathing apparatus.

5.4 Additional information

Do not let run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures.

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment (see section 8). Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

6.2 Environmental precautions

Do not let product enter drains or surface water. Spills are to be contained. Discharge into environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in a suitable closed container for disposal. Dispose correctly, referring to local regulations.

6.4 References to other sections

For disposal see section 13.

SECTION 7: Handling and storage.

7.1 Precautions for safe handling

Avoid exposure to skin and eyes.


7.2 Conditions for safe storage, including and incompatibilities

Store in a cool place, below 25°C. Keep contained upright and the cap tightly closed.

7.3 Specific end use(s)

Apart from uses specified in section 1.2, no other specific uses.

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 MODERNWATER	SDS Safety Data Sheet According to Regulation (EC) No. 1907/2006	Document No.: MSDS004 Version No.: 03 Effective Date: 01 Jan 2016
	Mercury Standard and Plate (Film) Solutions	

SECTION 8: Exposure controls/personal protection.

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No	Value type	Limit value	
Nitric acid	7697-37-2	STEL	1ppm (2.6mg/m ³)	EU and UK EH40 WEL
Mercury	10045-94-0	TWA	10ppm (0.025mg/m ³)	EU and UK EH WEL

8.2 Exposure controls:

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at end of workday.

Personal protective equipment

Wear suitable protective clothing

Eye/face protection

Safety glasses with side-shields conforming to EN166 or equivalent standard.

Skin protection

Handle with gloves (PVC or nitrile)

SECTION 9: Physical and chemical properties.

9.1 Information on basic physical and chemical properties

Appearance	Clear colourless Liquid
Odour	none
Odour threshold	no data available
pH	1 (approx.)
Melting point/range (°C)	no data available
Boiling point (°C):	100 (approx.)
Flash point	not flammable
Evaporation rate	no data available
Flammability (solid/gas)	not applicable
Upper/lower flammability rates	not flammable
Vapour pressure (mmHg at 20°C)	25 (approx.)
Vapour density	no data available
Relative density	1.0 (approx.)
Water solubility	completely miscible
Partition coefficient: n-octane/water	no data available
Auto ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	not applicable
Oxidising properties	no data available



MODERNWATER

SDS

Safety Data Sheet
According to Regulation (EC) No.
1907/2006

Document No.: MSDS004
Version No.: 03
Effective Date: 01 Jan 2016

Mercury Standard and Plate (Film) Solutions

Page 5 of 8

9.2 Other data

Corrosion May be corrosive to metals

SECTION 10: Stability and reactivity.

10.1 Reactivity

Mildly reactive to bases.

10.2 Chemical stability

This product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Strong bases.

10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information.

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes eye irritation

Respiration or skin sensitisation

Not sensitising

Germ cell mutagenicity

The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for components in this product.

Carcinogenicity

EPA-D: Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no data available.

IARC-3: Not classifiable as to carcinogenicity to humans.

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MODERNWATER

SDS

Safety Data Sheet
According to Regulation (EC) No.
1907/2006

Document No.: MSDS004
Version No.: 03
Effective Date: 01 Jan 2016

Mercury Standard and Plate (Film) Solutions

Page 6 of 8

ACGIH-A4: Not classifiable as to human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in human and/or animals.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.

Reproductive toxicity

The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for components in this product.

Specific target organ exposure – single exposure

No effects known.

Specific target organ exposure – repeated exposure

No effects known.

Aspiration hazard

No effects known.

Subacute to chronic toxicity

The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for components in this product.

Additional toxicological data

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Other adverse effects

No data available

SECTION 12: Ecological information.

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Harmful to aquatic life with long lasting effects.

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MODERNWATER

SDS

Safety Data Sheet
According to Regulation (EC) No.
1907/2006

Document No.: MSDS004
Version No.: 03
Effective Date: 01 Jan 2016

Mercury Standard and Plate (Film) Solutions

Page 7 of 8

General Notes

Do not allow product to reach groundwater, water bodies or sewage systems.
Do not allow product to be released into the environment without proper government permits.
Water hazard class 2 (Self-assessment): Hazardous to water.
Danger to drinking water even if small quantities leak into soil.

SECTION 13: Disposal considerations.

13.1 Waste treatment methods:

Product

Dispose in accordance to local regulations; consult the local waste disposal expert.

Contaminated packaging

Dispose in accordance to local regulations, the same way as the product itself.

SECTION 14: Transport information.

Non – Hazardous for air, road and sea transport.

Land transport (ADR/RID)

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard	Not applicable
14.4	Packaging group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precaution for user	Not applicable

Air transport (IATA)

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard	Not applicable
14.4	Packaging group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precaution for user	Not applicable

SEA transport (IMDG)

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard	Not applicable
14.4	Packaging group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precaution for user	Not applicable

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MODERNWATER

SDS

Safety Data Sheet
According to Regulation (EC) No.
1907/2006

Document No.: MSDS004
Version No.: 03
Effective Date: 01 Jan 2016

Mercury Standard and Plate (Film) Solutions

Page 8 of 8

SECTION 15: Regulatory information.

15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture

None applicable

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information.

Abbreviations and acronyms

ADR – European Agreement Concerning the International Carriage of Dangerous Goods by Road

Hg - Mercury

IATA – International Air Transportation Association

IMDG – international Maritime Code of Dangerous Goods

STEL – Short term exposure limit

TWA – Time Weighted Average

WEL – Workplace Exposure Limit

Symbol, R and S phrases for this mixture

Symbol	Xi- Irritant	
R-phrase(s)	R36/38	Irritating to eyes and skin
S-phrase(s)	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

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