EXAXOL CHEMICAL CORPORATION		Revision nr. 1 Dated 26/2/2016		
M50305 - Mercuric Nitrate 0.01N		Printed on 2/26/2016 Page n. 1/11		
Safety data sheet according to U.S.A. Federal Hazcom 2012 SECTION 1. Identification of the substance/mixture and of the company/undertaking				
<b>1.1. Product identifier</b> Code: Product name	M50305 Mercuric Nitrate 0.01N			
1.2. Relevant identified uses of the substance or mixture and uses advised against   Intended use For Laboratory Use Only.				
<b>1.3. Details of the supplier of the safety data shee</b> Name Full address District and Country	EXAXOL CHEMICAL CORPORATION 14325 60 TH ST N 33760 CLEARWATER - FLORIDA US			
e-mail address	Tel. 1-727-524-7732 Fax 1-727-532-8221 info@exaxol.com			
<b>1.4. Emergency telephone number</b> For urgent inquiries refer to	1-800-255-3924 ChemTel Inc.			
SECTION 2. Hazards identification.				
2.1. Classification of the substance or mixture.				
The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.				
Classification and Hazard Statement. Acute toxicity, category 4	Harmful if swallowed or in	contact with skin.		
Signal words: Warning				
Hazard statements:				
H302+H312 Harmful if swallowed or in contact with skin.				
Precautionary statements:				

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Prevention: <b>P264</b> <b>P270</b> <b>P280</b> Response: <b>P301+P312</b> <b>P302+P352</b> <b>P312</b> <b>P321</b> <b>P321</b> <b>P321</b> <b>P330</b> <b>P362+P364</b> Storage:	Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves / protective clothing. IF SWALLOWED: call a POISON CENTER / doctor if you feel unwell. IF ON SKIN: wash with plenty of water. Call a POISON CENTER / doctor if you feel unwell. Specific treatment (see label). Rinse mouth. Take off contaminated clothing and wash it before reuse.
Disposal: P501	Dispose of contents / container to an approved waste disposal plant.
2.2. Other hazards.	
Environmental classification	as for Reg. (EU) 1272/2008 (CLP):
The product is classified as	hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).
Classification and Hazard S Hazardous to the aquatic	Statement. environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.
Hazard statements:	
H412	Harmful to aquatic life with long lasting effects.
Precautionary statements:	
Prevention: <b>P273</b> Response:	Avoid release to the environment.
 Storage:  Disposal: <b>P501</b>  Additional hazards.	Dispose of contents / container to an approved waste disposal plant.
SECTION 3. Com	position/information on ingredients.
3.1. Substances.	
Information not relevant.	
3.2. Mixtures.	
Contains:	
Identification. WATER	Conc. %. Classification:
CAS. 7732-18-5 Mercury(II) Nitrate Mono	50 - 100 ohydrate

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CAS. 7783-34-8

0.25 - 0.5

Note: Upper limit is not included into the range.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

### **SECTION 4. First aid measures.**

### 4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately. INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

#### 4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

#### 4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

### **SECTION 5. Firefighting measures.**

#### 5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. UNSUITABLE EXTINGUISHING EQUIPMENT None in particular.

#### 5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Do not breathe combustion products.

### 5.3. Advice for firefighters.

#### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

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### **SECTION 6.** Accidental release measures.

#### 6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

### 6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

#### 6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

### **SECTION 7. Handling and storage.**

### 7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

#### 7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s).

Information not available.

### **SECTION 8. Exposure controls/personal protection.**

8.1. Control parameters.

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Information not available.

#### 8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

### ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

### **SECTION 9.** Physical and chemical properties.

#### 9.1. Information on basic physical and chemical properties.

Appearance Colour Odour Odour threshold. pH. Melting point / freezing point. Initial boiling point. Boiling range. Flash point. Evaporation Rate Flammability of solids and gases Lower inflammability limit	Not available. Not available. Not available. Not available. Not available. Not available. Not available. > 93 °C. Not available. Not available. Not available. Not available.
Lower inflammability limit. Upper inflammability limit.	Not available. Not available. Not available.

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Lower explosive limit. Upper explosive limit. Vapour pressure. Vapour density Relative density. Solubility Partition coefficient: n-octanol/water Auto-ignition temperature. Decomposition temperature. Viscosity Explosive properties Oxidising properties

#### Not available. Not available. Not available. 1.004 Kg/l Not available. Not available.

### 9.2. Other information.

Information not available.

### **SECTION 10. Stability and reactivity.**

### 10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

### 10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

#### 10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

#### 10.5. Incompatible materials.

Information not available.

### 10.6. Hazardous decomposition products.

Information not available.

### **SECTION 11. Toxicological information.**

11.1. Information on toxicological effects.

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In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: cutaneous absorption and ingestion of this product are harmful. Upon contact with skin, this product may irritate it, causing an increase in skin temperature, swelling and itchiness. Ingestion of even small amounts of this product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea). This product may slightly irritate mucosas, the upper respiratory tract, and eyes. Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness.

# This product is not considered to be a carcinogen by IARC, ACGIH, NTP, and OSHA. **SECTION 12. Ecological information.**

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment. **12.1. Toxicity.** Information not available.

#### 12.2. Persistence and degradability.

Information not available.

#### 12.3. Bioaccumulative potential.

Information not available.

#### 12.4. Mobility in soil.

Information not available.

#### 12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

#### 12.6. Other adverse effects.

Information not available.

### **SECTION 13.** Disposal considerations.

#### 13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

### **SECTION 14. Transport information.**

### **SECTION 15. Regulatory information.**

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

U.S. Federal Regulations.

Clean Air Act Section 112(b):

7783-34-8

Mercury(II) Nitrate Monohydrate (Mercury inorganic compounds)

Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

<u>Clean Water Act –</u> Priority Pollutants:

No component(s) listed.

<u>Clean Water Act –</u> Toxic Pollutants:

7783-34-8

DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

No component(s) listed.

EPA List of Lists:

313 Category Code:

7783-34-8

EPCRA 302 EHS TPQ:

No component(s) listed.

EPCRA 304 EHS RQ:

No component(s) listed.

CERCLA RQ:

No component(s) listed.

EPCRA 313 TRI:

Mercury(II) Nitrate Monohydrate (Mercury inorganic compounds)

Mercury(II) Nitrate Monohydrate (Mercury inorganic compounds)

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7783-34-8	Mercury(II) Nitrate Monohydrate		
RCRA Code:	(Mercury inorganic compounds)		
No component(s) listed.			
CAA 112 (r) RMP TQ:			
No component(s) listed.			
State Regulations.			
Massachussetts:			
No component(s) listed.			
<u>Minnesota:</u>			
No component(s) listed.			
New Jersey:			
7783-34-8	Mercury(II) Nitrate Monohydrate		
7783-34-8	(Mercury inorganic compounds) Mercury(II) Nitrate Monohydrate		
New York:	(Mercury inorganic compounds)		
No component(s) listed.			
Pennsylvania:			
No component(s) listed.			
<u>California:</u>			
7783-34-8	Mercury(II) Nitrate Monohydrate		
Proposition 65:	(Mercury inorganic compounds)		
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.			
7783-34-8	Mercury(II) Nitrate Monohydrate		
International Regulations.	(Mercury inorganic compounds)		
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:			
Substances subject to the Rotterdam Convention:			
Mercury(II) Nitrate Monohydrate ()			
Mercury(II) Nitrate Monohydrate ()			
Substances subject to the Stockholm Convention:			

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Mercury(II) Nitrate Monohydrate ()

Candadian WHMIS.

Information not available.

### **SECTION 16.** Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 1	Acute toxicity, category 1
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H310	Fatal in contact with skin.
H300	Fatal if swallowed.
H330	Fatal if inhaled.
H302+H312	Harmful if swallowed or in contact with skin.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code

ADR: European Agreement concerning the carriage of Dangerous goods by Road

CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)

CAS NUMBER: Chemical Abstract Service Number

- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- **OEL: Occupational Exposure Level**

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PEL: Predicted exposure level RCRA Code: Resource Conservation and Recovery Act Code **REL:** Recommended exposure limit RID: Regulation concerning the international transport of dangerous goods by train TLV: Threshold Limit Value TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure. **TSCA:** Toxic Substances Control Act TWA STEL: Short-term exposure limit TWA: Time-weighted average exposure limit VOC: Volatile organic Compounds - WHMIS: Workplace Hazardous Materials Information System. GENERAL BIBLIOGRAPHY: - GHS rev. 3 The Merck Index. 10th Edition Handling Chemical Safety Niosh - Registry of Toxic Effects of Chemical Substances INRS - Fiche Toxicologique (toxicological sheet) Patty - Industrial Hygiene and Toxicology N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition ECHA website 6 NYCRR part 597 Cal/OSHA website California Safe Drinking Water and Toxic Enforcement Act EPA website Hazard Comunication Standard (HCS 2012) IARC website List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act Massachussetts 105 CMR Department of public health 670.000: "Right to Know" Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know". New Jersey Worker and Community Right to know Act N.J.S.A. NTP. 2011. Report on Carcinogens, 12th Edition. OSHA website Pennsylvania, Hazardous Substance List, Chapter 323 Note for users: The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products.