**Otto Chemie Pet Ltd** An ISO 9001 : 2015 & GMP Certified Company Office : No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

Tel : + 91 98200 41841 Email : info@ottokemi.com Web : www.ottokemi.com

# MATERIAL SAFETY DATA SHEET (MSDS)

## SECTION 1: Product identifiers

Product Name : Cobalt nitrate, GR 99%+ Product Code : C 2417 CAS No: 10026-22-9

1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet Company identification OTTO CHEMIE PVT LTD No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number Phone no. : + 91 98200 41841 (10 : 00 am - 06 : 00 pm)

#### SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Oxidizing solids, (Category 2) Acute toxicity, (Category 4) Serious eye damage, (Category 1) Respiratory sensitization,

(Category 1)

Skin sensitization, (Category 1) Germ cell mutagenicity,

(Category 2) Carcinogenicity, (Category 1B) Reproductive toxicity, (Category

1B) Specific target organ toxicity -

repeated exposure, (Category 2), Lungs Short-term (acute) aquatic hazard, (Category 1) Long-term (chronic) aquatic H272: May intensify fire; oxidizer. H302: Harmful if swallowed. H318: Causes serious eye damage.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317: May cause an allergic skin reaction. H341: Suspected of causing genetic defects.

H350i: May cause cancer by inhalation. H360FD: May damage fertility. May damage the unborn child.

H373: May cause damage to organs through prolonged or repeated exposure if inhaled

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

hazard, (Category 1) 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Danger Hazard Statements H272 May intensify fire; oxidizer. H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled H341 Suspected of causing genetic defects.

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May cause cancer by inhalation.

other ignition sources. No smoking.

May cause an allergic skin reaction.

May cause cancer by inhalation.

Causes serious eye damage.

Suspected of causing genetic defects.

May damage fertility. May damage the unborn child.

Avoid release to the environment.

protection.

unwell.

rinsing.

none

Danger

if inhaled.

protection.

rinsina.

none

repeated exposure if inhaled.

May damage fertility. May damage the unborn child.

Very toxic to aquatic life with long lasting effects.

May cause damage to organs (Lungs) through prolonged or

Keep away from heat, hot surfaces, sparks, open flames and

Wear protective gloves/ protective clothing/ eye protection/ face

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel

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

May cause allergy or asthma symptoms or breathing difficulties

Wear protective gloves/ protective clothing/ eye protection/ face

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

IF exposed or concerned: Get medical advice/ attention.

IF exposed or concerned: Get medical advice/ attention.

H350i H360FD H373

H410 Precautionary Statements P210

P273 P280

P301 + P312

P305 + P351 + P338

P308 + P313 Supplemental Hazard Statements Restricted to professional users. Reduced Labeling (<= 125 ml) Pictogram Signal Word Hazard Statements H334

H317

H341 H350i H318 H360FD Precautionary Statements P280

P305 + P351 + P338

P308 + P313 Supplemental Hazard Statements 2.3 Other hazards

This substance/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. Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

# **SECTION 3: Composition/information on ingredients**

3.1 Substances	
Synonyms	: Cobaltous nitrate
Formula	: CoN2O6 · 6H2O
Molecular weight	: 291,03 g/mol
CAS-No.	: 10026-22-9
EC-No.	: 233-402-1

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Component		Classification	Concentration
Cobaltous nitrate, hexahydrate Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)			
CAS-No. EC-No.	10026-22-9 233-402-1	Ox. Sol. 2; Acute Tox. 4; Eye Dam. 1; Resp. Sens. 1; Skin Sens. 1; Muta. 2; Carc. 1B; Repr. 1B; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H272, H302, H318, H334, H317, H341, H350i, H360FD, H360F, H373, H400, H410 Concentration limits: >= 0,01 %: Carc. 1B, H350i; M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section

2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

# SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Nitrogen oxides (NOx) Cobalt/cobalt oxides Not combustible. Has a fire-promoting effect due to release of oxygen. Ambient fire may liberate hazardous vapours. 5.3 Advice for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. 5.4 Further information Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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#### SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. 6.2 Environmental precautions Do not let product enter drains. 6.3 Methods and materials for containment and cleaning up Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts. 6.4 Reference to other sections For disposal see section 13. **SECTION 7: Handling and storage** 7.1 Precautions for safe handling Advice on safe handling Work under hood. Do not inhale substance/mixture. Advice on protection against fire and explosion Keep away from open flames, hot surfaces and sources of ignition. Hygiene measures Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons. Do not store near combustible materials. Storage class Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated **SECTION 8: Exposure controls/personal protection** 8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles Skin protection This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L SIGALD- 239267 Page 7 of 15 The life science business of Merck operates as MilliporeSigma in the US and Canada This recommendation applies only to the product stated in the safety data sheet,

I his recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell,

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Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L Body Protection protective clothing Respiratory protection required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P3 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. Control of environmental exposure Do not let product enter drains.

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

9.1 Information on basic physical and chemical properties a) Physical state b) Color c) Odor d) Melting point/freezing point e) Initial boiling point and boiling range f) Flammability (solid, gas) g) Upper/lower flammability or explosive limits h) Flash point i) Autoignition temperature j) Decomposition temperature k) pH I) Viscosity m) Water solubility n) Partition coefficient: n-octanol/water o) Vapor pressure p) Density Relative density g) Relative vapor density r) Particle *c*haracteristics s) Explosive properties category 2. 9.2 Other safety information No data available

crystalline red No data available Melting point/range: 55 °C - lit.

No data available

No data available

No data available

Not applicable No data available

No data available

4,0 at 100 g/l at 20 °C Viscosity, kinematic: No data available Viscosity, dynamic: No data available soluble Not applicable for inorganic substances

No data available 1,88 g/cm3 No data available No data available

No data available

No data available t) Oxidizing properties The substance or mixture is classified as oxidizing with the

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### SECTION 10: Stability and reactivity

10.1 Reactivity No data available 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature) . 10.3 Possibility of hazardous reactions Risk of explosion with: ammonium compounds carbon/soot oxidisable substances 10.4 Conditions to avoid Heat. Exposure to moisture. no information available 10.5 Incompatible materials No data available 10.6 Hazardous decomposition products In the event of fire: see section 5 **SECTION 11: Toxicological information** 11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:

Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity to Animals: Not available. Special Remarks on Chronic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available.

### **SECTION 12: Ecological information**

12.1 Toxicity Toxicity to fish semi-static test LC50 - Pimephales promelas (fathead minnow) -1,866 mg/l - 96 h (US-EPA) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Cobalt(II). nitrate Toxicity to daphnia and other aquatic invertebrates static test LC50 - Ceriodaphnia dubia (water flea) - 0,39 mg/l - 48 h (US-EPA) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Cobalt(II) nitrate Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 0,095 mg/l - 72 SIGALD- 239267 Page 11 of 15 The life science business of Merck operates as MilliporeSigma in the US and Canada h (OECD Test Guideline 201) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Cobalt(II) nitrate Toxicity to bacteria static test EC50 - activated sludge - 120 mg/l - 30 min (OECD Test Guideline 209) Remarks: (anhydrous substance) The value is given in analogy to the following substances: Cobalt(II) nitrate Toxicity to

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fish(Chronic toxicity) semi-static test NOEC - Pimephales pro- mg/I - 7 d (US-EPA) Remarks: (anhydrous substance) The value is given in analogy to the follo- nitrate Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) semi-static test NOEC - Ceriodaphnia d - 7 d (US-EPA) Remarks: (anhydrous substance) The value is given in analogy to the follo- nitrate 12.2 Persistence and degradability The methods for determining the biolog substances. 12.3 Bioaccumulative potential No data available 12.4 Mobility in soil No data available 12.5 Results of PBT and vPvB assessm This substance/mixture contains no cor bioaccumulative and toxic (PBT), or ver levels of 0.1% or higher. 12.6 Endocrine disrupting properties Product: Assessment :	owing substances: Cobalt(II) lubia (water flea) - 0,02 mg/I owing substances: Cobalt(II) ical degradability are not applie nent nponents considered to be eith y persistent and very bioaccur The substance/mixture does considered to have endocrine according to REACH Article S Delegated regulation (EU) 20	ner persistent, nulative (vPvB) at not contain components e disrupting properties 57(f) or Commission 017/2100 or Commission
12.7 Other adverse effects Discharge into the environment must be	Regulation (EU) 2018/605 at e avoided.	levels of 0.170 of higher.
SECTION 13: Disposal consideration 13.1 Waste treatment methods No data available		
SECTION 14: Transport information 14.1 UN number		
IMDG: NITRATE	IMDG: 1477 ES, INORGANIC, N.O.S. (Coba ES, INORGANIC, N.O.S. (Coba inorganic, n.o.s. IMDG: 5.1 IMDG: II IMDG Marine pollutant: yes	

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## **SECTION 15: Regulatory information**

of the regulatory mornation
15.1 Safety, health and environmental regulations/legislation specific for the
substance or mixture
This material safety data sheet complies with the requirements of Regulation (EC) No.
1907/2006.
Authorisations and/or restrictions on use
REACH - Candidate List of Substances of Very
High Concern for Authorisation (Article 59).
Cobaltous nitrate, hexahydrate
REACH - Restrictions on the manufacture,
placing on the market and use of certain
dangerous substances, mixtures and articles
(Annex XVII)
Cobaltous nitrate, hexahydrate
National legislation
Seveso III: Directive 2012/18/EU of the
European Parliament and of the Council
P8 OXIDISING LIQUIDS AND
SOLIDS
on the control of major-accident hazards
involving dangerous substances.
E1 ENVIRONMENTAL HAZARDS
Other regulations
Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or
stricter national regulations where applicable.
Take note of Dir 94/33/EC on the protection of young people at work.
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out
Section 16: Other Information
This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information give

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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