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

1.1 Product identifier

- Trade name: Chloro(2-methylphenyl)(N,N,N',N'-tetramethyl-1,2-ethylenediamine)nickel(II), 99% (contains about 10% O-chlorotoluene) NiCl(o-tolyl)(TMEDA)

- Item number: 28-0165
- CAS Number: 1702744-45-3

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

No further relevant information available.

1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier: Strem Chemicals, Inc.
  7 Mulliken Way
  NEWBURYPORT, MA 01950
  USA
  info@strem.com

- Further information obtainable from: Technical Department

1.4 Emergency telephone number:

- EMERGENCY: CHEMTREC: +1 (800) 424-9300
- During normal opening times: +1 (978) 499-1600

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

- GHS08 health hazard

  Carc. 1B  H350  May cause cancer.

- GHS07

Skin Irrit. 2  H315  Causes skin irritation.
Skin Sens. 1  H317  May cause an allergic skin reaction.

2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
  The substance is classified and labelled according to the CLP regulation.
- Hazard pictograms

- GHS07  GHS08

- Signal word Danger

- Hazard statements
  H315  Causes skin irritation.
  H317  May cause an allergic skin reaction.
  H350  May cause cancer.

- Precautionary statements
  P101  If medical advice is needed, have product container or label at hand.

(Contd. on page 2)
**SECTION 3: Composition/information on ingredients**

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**
  1702744-45-3 Chloro(2-methylphenyl)(N,N,N',N'-tetramethyl-1,2-ethylenediamine)nickel(II), 99% (contains about 10% O-chlorotoluene) NiCl(o-tolyl)(TMEDA)

**SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
  - **After inhalation:**
    Supply fresh air and to be sure call for a doctor.
    In case of unconsciousness place patient stably in side position for transportation.
  - **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
  - **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
  - **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
  No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
  No further relevant information available.

**SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
  - **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**
  No further relevant information available.
- **5.3 Advice for firefighters**
  - **Protective equipment:** No special measures required.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**
  Not required.
- **6.2 Environmental precautions:**
  Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.

· **6.4 Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

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**SECTION 7: Handling and storage**

· **7.1 Precautions for safe handling**
  Ensure good ventilation/exhaustion at the workplace.
  Open and handle receptacle with care.

· **Handling:** Handle under inert gas.

· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:** Store contents under inert gas.

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:** None.

· **7.3 Specific end use(s)**
  No further relevant information available.

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**SECTION 8: Exposure controls/personal protection**

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**
  Ingredients with limit values that require monitoring at the workplace: Not required.

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
  Personal protective equipment:
  General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Store protective clothing separately.
  Avoid contact with the skin.
  Avoid contact with the eyes and skin.

· **Respiratory protection:**
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

  Protective gloves

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 15.02.2022
Revision: 15.02.2022

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Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

R Tightly sealed goggles

9.1 Information on basic physical and chemical properties

General Information

Appearance:
Form: Powder
Colour: Dark orange colour
Odour: Odourless
Odour threshold: Not determined.

pH-value: Not applicable.

Change in condition
Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: Undetermined.
Flash point: Not applicable.
Flammability (solid, gas): Not determined.

Ignition temperature:
Decomposition temperature: Not determined.
Auto-ignition temperature: Not determined.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:
Lower: Not determined.
Upper: Not determined.

Vapour pressure: Not applicable.

Density:
Relative density: Not determined.
Vapour density: Not applicable.
Evaporation rate: Not applicable.

Solubility in / Miscibility with water: Insoluble.

Partition coefficient: n-octanol/water: Not determined.

Viscosity:
Dynamic: Not applicable.
Kinematic: Not applicable.

Solvent content:
Organic solvents: 0.0 %
VOC (EC) 0.00 %
SECTION 10: Stability and reactivity

- 10.1 Reactivity: No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions: No dangerous reactions known.
- 10.4 Conditions to avoid: No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity: Based on available data, the classification criteria are not met.
- Primary irritant effect:
- Skin corrosion/irritation
  Causes skin irritation.
- Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation
  May cause an allergic skin reaction.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity
  May cause cancer.
- Reproductive toxicity: Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability: No further relevant information available.
- 12.3 Bioaccumulative potential: No further relevant information available.
- 12.4 Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:
  Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
  - **Recommendation**
    Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**
  - **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- **14.1 UN-Number**
  - ADR, ADN, IMDG, IATA: not regulated

- **14.2 UN proper shipping name**
  - ADR, ADN, IMDG, IATA: not regulated

- **14.3 Transport hazard class(es)**
  - ADR, ADN, IMDG, IATA: not regulated

- **14.4 Packing group**
  - ADR, IMDG, IATA: not regulated

- **14.5 Environmental hazards:**
  - Marine pollutant: No

- **14.6 Special precautions for user**
  - Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
  - Not applicable.

- **UN "Model Regulation":**
  - not regulated

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I: Substance is not listed.

- **National regulations:**
  - Additional classification according to Decree on Hazardous Materials, Annex II:
    - Carcinogenic hazardous material group I (extremely dangerous).
    - Carcinogenic hazardous material group II (very dangerous).
    - Carcinogenic hazardous material group III (dangerous).

- **Information about limitation of use:**
  - Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
Trade name: Chloro(2-methylphenyl)(N,N,N',N'-tetramethyl-1,2-ethylenediamine)nickel(II), 99% (contains about 10% O-chlorotoluene) NiCl(o-tolyl)(TMEDA)

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: Technical Department.
Contact: Technical Director
Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 1B: Carcinogenicity – Category 1B