Printing date 17.07.2021

CHEMICALS, INC.

Revision: 14.07.2021

inting date 17.07.2	021 Revision: 14.07.2021
SECTION 1:	Identification of the substance/mixture and of the company/undertaking
· 1.1 Product iden	tifier
· Trade name: <u>Ni</u>	ckel(II) bromide, anhydrous (99+%-Ni)
	8-1140 <b>ntified uses of the substance or mixture and uses advised against</b> ant information available.
• Manufacturer/S Strem Chemicals 7 Mulliken Way NEWBURYPOR USA	, Inc.
	tion obtainable from: Technical Department
• Further informa • 1.4 Emergency t EMERGENCY:	tion obtainable from: Technical Department elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600
• Further informa • 1.4 Emergency t EMERGENCY: During normal o	elephone number: CHEMTREC: + 1 (800) 424-9300
• Further informa • 1.4 Emergency t EMERGENCY: During normal o SECTION 2: • 2.1 Classification • Classification ad	elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600
<ul> <li>Further information</li> <li>1.4 Emergency to the EMERGENCY: During normal of the Substance is</li> <li>2.1 Classification and the Substance is</li> <li>2.2 Label elementic Labelling according the Augurd pictograme is signal word Voite in the Substance statementic precautionary statements</li> </ul>	elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600 Hazards identification n of the substance or mixture cording to Regulation (EC) No 1272/2008 not classified according to the CLP regulation. Its ling to Regulation (EC) No 1272/2008 Void ms Void d tts Void atements
<ul> <li>Further information</li> <li>Further information</li> <li>1.4 Emergency to the temperature of the temperature of the temperature of the temperature of the substance is</li> <li>2.2 Label elemented the temperature of temperatu</li></ul>	elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600 Hazards identification n of the substance or mixture cording to Regulation (EC) No 1272/2008 not classified according to the CLP regulation. Its ling to Regulation (EC) No 1272/2008 Void ms Void d tts Void atements Handle under inert gas.
<ul> <li>Further information</li> <li>1.4 Emergency t EMERGENCY: During normal of SECTION 2:</li> <li>2.1 Classification Classification action The substance is</li> <li>2.2 Label element</li> <li>Labelling accord</li> <li>Hazard pictogra</li> <li>Signal word Voit</li> <li>Hazard statement</li> <li>Precautionary state</li> <li>P231</li> <li>P262</li> </ul>	elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600 Hazards identification n of the substance or mixture cording to Regulation (EC) No 1272/2008 not classified according to the CLP regulation. hts ling to Regulation (EC) No 1272/2008 Void ms Void d tts Void atements Handle under inert gas. Do not get in eyes, on skin, or on clothing.
<ul> <li>Further information</li> <li>1.4 Emergency t EMERGENCY: During normal of SECTION 2:</li> <li>2.1 Classification Classification action The substance is</li> <li>2.2 Label element Labelling accord Hazard pictogra</li> <li>Signal word Voit Hazard statement</li> <li>Precautionary st P231 P262 P280</li> </ul>	elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600 Hazards identification n of the substance or mixture cording to Regulation (EC) No 1272/2008 not classified according to the CLP regulation. Its ling to Regulation (EC) No 1272/2008 Void ms Void d tts Void atements Handle under inert gas.
<ul> <li>Further information</li> <li>1.4 Emergency t EMERGENCY: During normal of SECTION 2:</li> <li>2.1 Classification Classification action The substance is</li> <li>2.2 Label element Labelling accord Hazard pictogra</li> <li>Signal word Voit Hazard statement</li> <li>Precautionary st P231 P262 P280</li> </ul>	elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600 Hazards identification n of the substance or mixture cording to Regulation (EC) No 1272/2008 not classified according to the CLP regulation. tts ling to Regulation (EC) No 1272/2008 Void ms Void d tts Void atements Handle under inert gas. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. 38 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, ij present and easy to do. Continue rinsing. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/internationa
<ul> <li>Further information</li> <li>1.4 Emergency t EMERGENCY: During normal of SECTION 2:</li> <li>2.1 Classification Classification and The substance is</li> <li>2.2 Label elemention</li> <li>Labelling according Hazard pictogra</li> <li>Signal word Voit</li> <li>Hazard statemention</li> <li>Precautionary st P231 P262 P280 P305+P351+P3</li> <li>P403+P233 P501</li> </ul>	elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600 Hazards identification n of the substance or mixture cording to Regulation (EC) No 1272/2008 not classified according to the CLP regulation. tts ling to Regulation (EC) No 1272/2008 Void ms Void 1 tts Void 1 tts Void atements Handle under inert gas. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. 38 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, i present and easy to do. Continue rinsing. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/internationa regulations.
<ul> <li>Further information</li> <li>1.4 Emergency t EMERGENCY: During normal of SECTION 2:</li> <li>2.1 Classification Classification and The substance is</li> <li>2.2 Label elemention</li> <li>Labelling according Hazard pictogra</li> <li>Signal word Voit</li> <li>Hazard statemention</li> <li>Precautionary st P231 P262 P280 P305+P351+P3</li> <li>P403+P233 P501</li> <li>2.3 Other hazard</li> </ul>	elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600 Hazards identification n of the substance or mixture cording to Regulation (EC) No 1272/2008 not classified according to the CLP regulation. tts ling to Regulation (EC) No 1272/2008 Void ms Void d tts Void atements Handle under inert gas. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. 38 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, ij present and easy to do. Continue rinsing. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/internationa regulations.
<ul> <li>Further information</li> <li>1.4 Emergency t EMERGENCY: During normal of SECTION 2:</li> <li>2.1 Classification Classification and The substance is</li> <li>2.2 Label elemention</li> <li>Labelling according Hazard pictogra</li> <li>Signal word Voit</li> <li>Hazard statemention</li> <li>Precautionary st P231 P262 P280 P305+P351+P3</li> <li>P403+P233 P501</li> <li>2.3 Other hazard</li> </ul>	elephone number: CHEMTREC: + 1 (800) 424-9300 pening times: +1 (978) 499-1600 Hazards identification n of the substance or mixture cording to Regulation (EC) No 1272/2008 not classified according to the CLP regulation. ths ling to Regulation (EC) No 1272/2008 Void ms Void d ts Void atements Handle under inert gas. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. 38 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, ij present and easy to do. Continue rinsing. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations. Is md vPvB assessment

(Contd. on page 2)

Printing date 17.07.2021

Revision: 14.07.2021

Trade name: Nickel(II) bromide, anhydrous (99+%-Ni)

(Contd. of page 1)

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

· 3.1 Chemical characterisation: Substances

· CAS No. Description

13462-88-9 nickel dibromide

- Identification number(s)
- EC number: 236-665-0 • Index number: 028-029-00-4

## **SECTION 4: First aid measures**

- 4.1 Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- · 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: No special measures required.
- 6.3 Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13.
- · 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.

# **SECTION 7: Handling and storage**

- · 7.1 Precautions for safe handling No special measures required.
- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

(Contd. on page 3)



Printing date 17.07.2021

Revision: 14.07.2021

Trade name: Nickel(II) bromide, anhydrous (99+%-Ni)

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

### 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:
- 13462-88-9 nickel dibromide
- WEL Long-term value: 0.1 mg/m<sup>3</sup>
  - as Ni; Sk; Carc; Sen
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- · 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 • 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: Safety glasses

<ul> <li>9.1 Information on basic physical a</li> <li>General Information</li> </ul>	na chemicai properties	
· Appearance:		
Form:	Powder	
Colour:	Yellowish	
· Odour:	Odourless	
· Odour threshold:	Not determined.	
· pH-value:	Not applicable.	
· Change in condition		
Melting point/freezing point:	963 °C	
Initial boiling point and boiling re	<b>inge:</b> Undetermined.	
· Flash point:	Not applicable.	
· Flammability (solid, gas):	Product is not flammable.	
· Ignition temperature:		
Decomposition temperature:	Not determined.	
		(Contd. on page 4

(Contd. of page 2)

Printing date 17.07.2021

Revision: 14.07.2021

Trade name: Nickel(II) bromide, anhydrous (99+%-Ni)

	(Contd. of page
• 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 at 20 •C:	5.098 g/cm <sup>3</sup>
· 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 %
Solids content:	100.0 %
• 9.2 Other information	No further relevant information available.

# 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 Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

- $\cdot$  Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.

• Reproductive toxicity Based on available data, the classification criteria are not met.

- $\cdot \textit{STOT-single exposure Based on available data, the classification criteria are not met.}$
- STOT-repeated exposure Based on available data, the classification criteria are not met.

(Contd. on page 5)

GB



Printing date 17.07.2021

CHEMICALS, INC

Revision: 14.07.2021

(Contd. of page 4)

Trade name: Nickel(II) bromide, anhydrous (99+%-Ni)

• 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: Not known to be hazardous to water.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

### **SECTION 13: Disposal considerations**

· 13.1 Waste treatment methods

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

- 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 Class	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 Ann	ex II of	
Marpol and the IBC Code	Not applicable.	

(Contd. on page 6)

Printing date 17.07.2021

Revision: 14.07.2021

Trade name: Nickel(II) bromide, anhydrous (99+%-Ni)

(Contd. of page 5)

#### **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.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 27, 28, 30
- 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
- EINECS: European Inventory of Existing Commercial Chemical Substances
- 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*

