



**CASWELL INC**

## **Safety Data Sheet Black Nickel Plating Crystals**

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### **SECTION 1: Identification**

#### **1.1 Product identifier**

Product name	Black Nickel Plating Crystals
Product number	BNKC
Brand	Caswell

#### **1.2 Other means of identification**

Green & White Crystal Mixture

#### **1.3 Recommended use of the chemical and restrictions on use**

Electroplating Of Metals

#### **1.4 Supplier's details**

Name	Caswell Inc
Address	7696 Route 31 Lyons, NY 14489 USA
Telephone	315 946 1213
Fax	315 946 4456
email	sales@caswellplating.com

#### **1.5 Emergency phone number(s)**

Office Hours (9-4ET): 315 946 1213  
24 Hour: CHEMTEL US# 1-800-255-3924 Intl# +01-813-248-0585

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### **SECTION 2: Hazard identification**

#### **2.1 Classification of the substance or mixture**

- Carcinogenicity (chapter 3.6), Cat. 2
- Acute toxicity, oral (chapter 3.1), Cat. 4
- Sensitization, respiratory (chapter 3.4), Cat. 1
- Sensitization, skin (chapter 3.4), Cat. 1
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1
- Eye damage/irritation (chapter 3.3), Cat. 2

#### **2.2 GHS label elements, including precautionary statements**

# Safety Data Sheet

## Black Nickel Plating Crystals

### Pictogram



### Signal word

### Warning

### Hazard statement(s)

H351	Suspected of causing cancer
H302	Harmful if swallowed
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317	May cause an allergic skin reaction
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H319	Causes serious eye irritation
H360FD	May damage fertility. May damage the unborn child.

### Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to ...
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell,
P330	Rinse mouth.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P284	[In case of inadequate ventilation] wear respiratory protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
P272	Contaminated work clothing should not be allowed out of the workplace.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.
P321	Specific treatment (see ... on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P273	Avoid release to the environment.
P391	Collect spillage.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

### 2.3 Other hazards which do not result in classification

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## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

##### 1. NICKEL (II) SULFATE

# Safety Data Sheet

## Black Nickel Plating Crystals

Concentration	45 - 50 % (Weight)
Other names / synonyms	NA 9141; NICKEL (2+) SULFATE; NICKEL MONOSULFATE; NICKEL SULFATE; NICKEL SULFATE (1:1); NICKEL SULPHATE; NICKELOUS SULFATE; NICKELSULFATE; SULFURIC ACID, NICKEL (2+) SALT (1:1); Sulfuric acid, nickel(2+) salt (1:1)
EC no.	232-104-9
CAS no.	7786-81-4
Index no.	028-009-00-5

- Carcinogenicity (chapter 3.6), Cat. 2
- Acute toxicity (chapter 3.1), Cat. 4
- Sensitization, respiratory (chapter 3.4), Cat. 1
- Sensitization, skin (chapter 3.4), Cat. 1
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

### 2. Zinc sulfate Heptahydrate

Concentration	20 - 24 % (Weight)
CAS no.	7446-20-0

### 3. Ammonium thiocyanate

Concentration	20 - 23 % (Weight)
Other names / synonyms	Ammonium Rhodanate; Ammonium Sulfocyanate; Thiocyanic acid, ammonium salt (1:1)
CAS no.	1762-95-4

### 4. Zinc chloride

Concentration	1 - 3 % (Weight)
Other names / synonyms	Zinc chloride (ZnCl <sub>2</sub> ); ZINCCHLORIDE
EC no.	231-592-0
CAS no.	7646-85-7
Index no.	030-003-00-2

- Acute toxicity (chapter 3.1), Cat. 4
- Skin corrosion/irritation (chapter 3.2), Cat. 1B
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H400	Very toxic to aquatic life

# Safety Data Sheet

## Black Nickel Plating Crystals

H410

Very toxic to aquatic life with long lasting effects

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### SECTION 4: First-aid measures

#### 4.1 Description of necessary first-aid measures

If inhaled	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
In case of skin contact	Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
In case of eye contact	Flush eye with water for 15 minutes. Get medical attention.
If swallowed	If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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### SECTION 5: Fire-fighting measures

#### 5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

#### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

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### SECTION 6: Accidental release measures

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

Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal. Contain spillage, soak up with absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13)

#### 6.2 Environmental precautions

Do not allow to reach sewer or water source.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Ensure adequate ventilation. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation. dust is formed. For precautions see section 2.2.

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

Keep container tightly closed in a dry and well-ventilated place.

# Safety Data Sheet

## Black Nickel Plating Crystals

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**1. Zinc chloride fume (CAS: 7646-85-7)**

PEL (Inhalation): 1 mg/m<sup>3</sup> (OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

**2. Zinc chloride fume (CAS: 7646-85-7)**

PEL (Inhalation): 1 mg/m<sup>3</sup>, (ST) 2 mg/m<sup>3</sup> (Cal/OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

**3. Zinc chloride fume (CAS: 7646-85-7)**

REL (Inhalation): 1 mg/m<sup>3</sup>, (ST) 2 mg/m<sup>3</sup> (NIOSH)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 8.2 Appropriate engineering controls

Distribution, Workplace and Household Settings: Ensure adequate ventilation. Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

#### 8.3 Individual protection measures, such as personal protective equipment (PPE)

##### Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Wear chemical resistant gloves and clothing.

##### Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

##### Thermal hazards

None

##### Environmental exposure controls

Prepare in advance for possible spills or leaks by ensuring surrounding area is dyked or leak collection apparatus is in place.

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### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

Appearance/form	Mostly Green with some white Crystal Mixture
Odor	None
Odor threshold	
pH	5.75

# Safety Data Sheet

## Black Nickel Plating Crystals

Melting point/freezing point	32 deg F
Initial boiling point and boiling range	212 deg F
Flash point	Not Flammable
Evaporation rate	NA
Flammability (solid, gas)	Not Flammable
Upper/lower flammability limits	
Upper/lower explosive limits	
Vapor pressure	
Vapor density	
Relative density	2.07
Solubility(ies)	Complete In Water
Partition coefficient: n-octanol/water	
Auto-ignition temperature	
Decomposition temperature	
Viscosity	
Explosive properties	Not Explosive
Oxidizing properties	Not An Oxidizer

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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Not Reactive

#### 10.2 Chemical stability

Stable

#### 10.5 Incompatible materials

Strong Acids

#### 10.6 Hazardous decomposition products

Sulphur Oxides. Nickel Oxide

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### SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

LD50 Oral Rat: 264 mg/kg Nickel Sulfate

##### Skin corrosion/irritation

May cause skin irritation

##### Serious eye damage/irritation

Causes Eye Irritation

##### Respiratory or skin sensitization

Long term exposure to skin may cause skin irritation and may cause sensitization or allergic reactions resulting in chronic eczema or "nickel itch"

##### Germ cell mutagenicity

In vitro tests showed mutagenic effects. Please refer to RTECS QR9600000 for data and references

##### Carcinogenicity

# Safety Data Sheet

## Black Nickel Plating Crystals

Human Carcinogen. May cause cancer by inhalation

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### SECTION 12: Ecological information

#### Persistence and degradability

Readily degradable in the environment

#### Bioaccumulative potential

Shows potential for bio-accumulation

#### Mobility in soil

Nickel is very mobile in aquatic environment and

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### SECTION 13: Disposal considerations

#### Disposal of the product

Consult appropriate federal and local regulations for disposal. Empty containers are subject to the same regulations.

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### SECTION 14: Transport information

#### DOT (US)

Not dangerous goods

#### IMDG

Not dangerous goods

#### IATA

Not dangerous goods

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### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations specific for the product in question

##### New Jersey Right To Know Components

Common name: NICKEL SULFATE HEXAHYDRATE

CAS number: 10101-97-0

##### California Prop. 65 components

Chemical name: NICKEL SULFATE HEXAHYDRATE

CAS number: 10101-97-0

05/07/2004 - Cancer

##### Massachusetts Right To Know Components

Chemical name: Zinc chloride

CAS number: 7646-85-7

##### New Jersey Right To Know Components

Common name: ZINC CHLORIDE

CAS number: 7646-85-7

##### Pennsylvania Right To Know Components

# Safety Data Sheet

## Black Nickel Plating Crystals

Chemical name: Zinc chloride  
CAS number: 7646-85-7

### Massachusetts Right To Know Components

Chemical name: Ammonium thiocyanate  
CAS number: 1762-95-4

### New Jersey Right To Know Components

Common name: AMMONIUM THIOCYANATE  
CAS number: 1762-95-4

### Pennsylvania Right To Know Components

Chemical name: Thiocyanic acid, ammonium salt  
CAS number: 1762-95-4

### Massachusetts Right To Know Components

Chemical name: Nickel sulfate  
CAS number: 7786-81-4

### New Jersey Right To Know Components

Common name: NICKEL SULFATE  
CAS number: 7786-81-4

### Pennsylvania Right To Know Components

Chemical name: Sulfuric acid, nickel(2+) salt (1:1)  
CAS number: 7786-81-4

### California Prop. 65 components

Chemical name: NICKEL (II) SULFATE  
CAS number: 7786-81-4  
05/07/2004 - Cancer

### HMIS Rating

Black Nickel Plating Crystals	
HEALTH	* 2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

### NFPA Rating



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## SECTION 16: Other information

### 16.1 Further information/disclaimer



## **Safety Data Sheet**

### **Black Nickel Plating Crystals**

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