



CASWELL INC

Safety Data Sheet Black Nickel Plating Crystals

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

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

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- 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

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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Hazardous components

1. NICKEL (II) SULFATE

Concentration	45 - 50 % (weight)
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
- Respiratory sensitizer (chapter 3.4), Cat. 1
- Skin sensitizer (chapter 3.4), Cat. 1
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (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 [route]
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)
CAS no.	1762-95-4

4. Zinc chloride

Concentration	1 - 3 % (weight)
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, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

SECTION 4: First-aid measures

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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.

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.

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.

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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

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PEL (Inhalation): 1 mg/m³ (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 1 mg/m³, (ST) 2 mg/m³ (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 1 mg/m³, (ST) 2 mg/m³ (NIOSH)
OSHA Annotated Table Z-1, 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.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Mostly Green with some white Crystal Mixture
Odor	None
Odor threshold	
pH	5.75
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	

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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

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

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

Human Carcinogen. May cause cancer by inhalation

SECTION 12: Ecological information

Persistence and degradability

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Readily degradable in the environment

Bioaccumulative potential

Shows potential for bio-accumulation

Mobility in soil

Nickel is very mobile in aquatic environment and

SECTION 13: Disposal considerations

Disposal of the product

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

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

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

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

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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



SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Caswell Inc be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Caswell Inc has been advised of the possibility of such damages.