



SAFETY DATA SHEET NICKEL BLACK

1. Identification

Product identifier

Product name NICKEL BLACK

Product number 2082/5670

Recommended use of the chemical and restrictions on use

Application Industrial Use

Details of the supplier of the safety data sheet

Supplier SIFCO Applied Surface Concepts
5708 E. Schaaf Road
Independence, Ohio 44131
U.S.A.
Tel.: +1 216-524-0099
Fax: +1 216-524-6331
E-Mail: info@sifcoasc.com

Emergency telephone number

Emergency telephone CHEMTREC (United States) (800) 424-9300; CHEMTREC (International) +1 703-527-3887

2. Hazard(s) identification

Classification of the substance or mixture

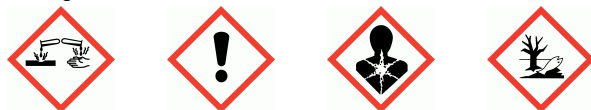
Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 1A - H350 Repr. 1B - H360D STOT SE 3 - H335 STOT RE 1 - H372

Environmental hazards Aquatic Chronic 2 - H411

Label elements

Pictogram



Signal word

Danger

NICKEL BLACK

Hazard statements

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 May cause respiratory irritation.
 H341 Suspected of causing genetic defects.
 H350 May cause cancer.
 H360D May damage the unborn child.
 H372 Causes damage to organs through prolonged or repeated exposure.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe vapor/spray.
 P264 Wash contaminated skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P284 [In case of inadequate ventilation] wear respiratory protection.
 P302+P352 If on skin: Wash with plenty of water.
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308+P313 If exposed or concerned: Get medical advice/attention.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container in accordance with national regulations.

Contains

AMMONIUM FORMATE, AMMONIA 4 %, NICKEL DIHYDROXIDE

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

AMMONIUM FORMATE	10-30%
CAS number: 540-69-2	

Classification

Skin Irrit. 2 - H315
 Eye Irrit. 2 - H319
 STOT SE 3 - H335

AMMONIUM SULPHATE

5-10%

CAS number: 7783-20-2

REACH registration number: 01-
2119455044-46-0000

Classification

Not Classified

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AMMONIUM MOLYBDATE	5-10%
CAS number: 12054-85-2	
Classification	
Not Classified	
AMMONIUM CITRATE	1-5%
CAS number: 3458-72-8	
Classification	
Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 STOT SE 3 - H335	
AMMONIA 4 %	1-5%
CAS number: 1336-21-6	
M factor (Acute) = 1	
Classification	
Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 Aquatic Acute 1 - H400	
NICKEL DIHYDROXIDE	1-5%
CAS number: 12054-48-7	
M factor (Acute) = 1	
M factor (Chronic) = 1	
Classification	
Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 1A - H350i Repr. 1B - H360D STOT RE 1 - H372 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	

The Full Text for all Hazard Statements are Displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Never give anything by mouth to an unconscious person. Get medical attention.

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Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention immediately.
Skin Contact	Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes and get medical attention.
Eye contact	It is recommended that suitable facilities for quick drenching or flushing of the eyes and body be provided within the work area for immediate emergency use. Remove affected person from source of contamination. Make sure to remove any contact lenses from the eyes before rinsing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed

Inhalation	Coughing, chest tightness, feeling of chest pressure.
Ingestion	May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.
Skin contact	May cause serious chemical burns to the skin.
Eye contact	Causes severe burns. May cause serious eye damage.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations.
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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards Toxic and corrosive gases or vapors.

Advice for firefighters

Protective actions during firefighting Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate general and local exhaust ventilation.

Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. DO NOT touch spilled material! Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material. Collect and dispose of spillage as indicated in Section 13. Wash thoroughly after dealing with a spillage.

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Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray/mists. Provide adequate general and local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight.

Storage class Toxic storage. Corrosive storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

AMMONIUM SULPHATE (CAS: 7783-20-2)

PNEC

Industry - ; Long term 42.7 mg/kg/day Industry - ; Long term 11.17 mg/m³ - Fresh water; 0.321 mg/l - Marine water; 0.312 mg/l - Soil; 62.6 mg/l - Sediment; 0.063 mg/l

Exposure controls

Protective equipment



Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

Eye/face protection

Tight-fitting safety glasses.

Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. It is recommended that gloves are made of the following material: Nitrile rubber.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

NICKEL BLACK

Appearance	Liquid.
Color	Blue-green.
Odor	No characteristic odor.
pH	pH (concentrated solution): 7.2-8.4
Relative density	1.139-1.159 @ 20°C
Other information	Not available.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures. Avoid the following conditions: Mixing with any other material.
Possibility of hazardous reactions	Not determined.
Conditions to avoid	Avoid excessive heat for prolonged periods of time.
Materials to avoid	Strong acids.
Hazardous decomposition products	None at ambient temperatures.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 41,621.62162162

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 40.54054054

Inhalation	Vapours irritate the respiratory system, and may cause coughing and difficulties in breathing.
Ingestion	Toxic if swallowed. Toxic: danger of serious damage to health by prolonged exposure if swallowed. Causes severe burns. May cause chemical burns in mouth, esophagus and stomach.
Skin Contact	May cause serious chemical burns to the skin. May cause sensitization or allergic reactions in sensitive individuals.
Eye contact	Causes serious eye damage. Immediate first aid is imperative.
Acute and chronic health hazards	Causes severe burns. May cause cancer.
Route of entry	Ingestion Inhalation Skin and/or eye contact

Toxicological information on ingredients.

NICKEL DIHYDROXIDE

Acute toxicity - oral

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**Acute toxicity oral (LD₅₀
mg/kg)** 1,540.0

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - inhalation

**ATE inhalation
(dusts/mists mg/l)** 1.5

Carcinogenicity

NTP carcinogenicity Reasonably anticipated to be a human carcinogen.

12. Ecological Information

Ecotoxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Toxicity

Toxicity No data available.

Ecological information on ingredients.

NICKEL DIHYDROXIDE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C50 ≤ 1

M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

Persistence and degradability

Persistence and degradability No data available.

Bioaccumulative potential

Bio-Accumulative Potential The product does not contain any substances expected to be bioaccumulating.

Mobility in soil

Mobility The product is soluble in water.

Results of PBT and vPvB assessment

**Results of PBT and vPvB
assessment** This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects Not determined.

13. Disposal considerations

Waste treatment methods

General information Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

NICKEL BLACK**14. Transport information****UN Number**

UN No. (DOT) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN proper shipping name

Proper shipping name (DOT) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NICKEL DIHYDROXIDE, AMMONIA ...%)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NICKEL DIHYDROXIDE, AMMONIA ...%)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NICKEL DIHYDROXIDE, AMMONIA ...%)

Transport hazard class(es)

IMDG Class 9

IMDG subsidiary risk

ICAO class/division 9

ICAO subsidiary risk

Transport labels**Packing group**

DOT pack group III

IMDG packing group III

ICAO packing group III

Environmental hazards**Environmentally Hazardous Substance****Special precautions for user**

EmS F-A, S-F

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

15. Regulatory information**US Federal Regulations****SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

Exempt.

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CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Ammonium Hydroxide
 Final CERCLA RQ: 1000 lbs
 Nickel Hydroxide
 Final CERCLA RQ: 10 lbs

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

Exempt.

SARA 313 Emission Reporting

Ammonium Hydroxide

CAA Accidental Release Prevention

Exempt.

SARA (311/312) Hazard Categories

Acute
 Chronic

OSHA Highly Hazardous Chemicals

Exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Nickel Hydroxide

California Directors List of Hazardous Substances

Ammonium Hydroxide
 Nickel Hydroxide

Inventories

US - TSCA

All ingredients are present.

16. Other information

Revision date	3/17/2015
Revision	1
Hazard statements in full	<p>H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H350 May cause cancer. H350i May cause cancer by inhalation. H360D May damage the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.</p>

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NFPA - flammability hazard	Will not burn. (0)
NFPA - health hazard	Temporary incapacitation, injury. (2)
NFPA - instability hazard	Normally stable. (0)

The Information in this data sheet is believed to be correct but neither we nor our employees or agents give any warranty or make any representation to the accuracy thereof and accept no liability for any loss, injury or damage which may result in it's use. The sole purpose of this data sheet is to provide guidance on the safe handling and use of the products to which it relates. It does not form part of any product specification nor part of any contract. It is not practical for the guidance and information in this data sheet to cover every conceivable application of a product and as we may not be aware of the use to which the products covered by this data sheet are to be put it remains the responsibility of the user to conduct it's own tests and to satisfy itself as to the suitability of the product.