

* 1 Identification

- **Product identifier**
- **Trade name: Spent Nickel Catalyst**
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Ag Processing Inc
12700 West Dodge Rd.
Omaha, NE 68154
Phone: 402-496-7809
- **Emergency telephone number:** 402-496-6688

* 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Sol. 2 H228 Flammable solid.



GHS08 Health hazard

Carc. 1A H350 May cause cancer.

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

Eye Irrit. 2B H320 Causes eye irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

cristobalite

Vegetable Oil, hydrogenated

Nickel

nickel monoxide

Silicon Dioxide

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 04/28/2015

Trade name: Spent Nickel Catalyst**• Hazard statements**

Flammable solid.

• May cause eye irritation.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

• Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective clothing as needed.

Wear protective gloves as needed.

Wear eye protection / face protection as needed.

Ground/bond container and receiving equipment.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If swallowed: Immediately call a poison center/doctor.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a poison center/doctor if you feel unwell.

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

Do NOT induce vomiting.

In case of fire: Use for extinction: CO2, sand, extinguishing powder.

If on skin: Wash with plenty of water.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

• Unknown acute toxicity:

14.2 percent of the mixture consists of ingredient(s) of unknown toxicity.

• Classification system:**• NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 1

Reactivity = 0

• HMIS-ratings (scale 0 - 4)

HEALTH 2 Health = *2

FIRE 1 Fire = 1

REACTIVITY 0 Reactivity = 0

• Hazard(s) not otherwise classified (HNOC): None known

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Issue date 04/28/2015

Trade name: **Spent Nickel Catalyst**

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous Components:**

CAS: 14464-46-1 RTECS: VV 7325000	cristobalite ☠ Carc. 1A, H350	30-70%
CAS: 68334-28-1	Vegetable Oil, hydrogenated ⚠ STOT SE 3, H335; Eye Irrit. 2B, H320	30-40%
CAS: 7440-02-0	Nickel ☠ Carc. 2, H351; STOT RE 1, H372; ⚠ Skin Sens. 1, H317	3-12%
CAS: 1313-99-1	nickel monoxide ☠ Carc. 1A, H350; STOT RE 1, H372; ⚠ Skin Sens. 1, H317; Aquatic Chronic 4, H413	3-12%
CAS: 7631-86-9	Silicon Dioxide ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	1-5%
CAS: 1344-28-1 RTECS: BD 1200000	aluminium oxide ⚠ STOT SE 3, H335	1-3%

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Remove affected person to fresh air. Seek medical attention if symptoms persist.
- **After skin contact:**
Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Induce vomiting, only if affected person is fully conscious.
Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
Water with full jet
Water
- **Special hazards arising from the substance or mixture**
Fine powder, foil and turnings are easily ignited and burn with intense heat. Pieces less than 3mm thick are difficult to ignite, but possible when sufficient heat is applied.

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Flammable/combustible material; may be ignited by heat, sparks or flames. May burn rapidly with flare-burning effect.

- **Advice for firefighters**
- **Protective equipment:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Notify safety personnel of spill. Clean up personnel need personal protection against inhalation of dust or fumes. Eye protection is required.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Dispose contaminated material as waste according to section 13.

Vacuuming or wet methods of clean up are preferred. Place in appropriate containers for disposal, keeping airborne particulates to a minimum.

- **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.

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Open and handle receptacle with care.

Protect against physical damage.

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect from heat.

Protect against electrostatic charges.

Keep protective respiratory device available.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** Store in a cool location.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

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

* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.

- **Control parameters**

- **Components with occupational exposure limits:**

14464-46-1 cristobalite

PEL	½ value from respirable dust formula for Quartz
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REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *as respirable fraction
7440-02-0 Nickel	
PEL	Long-term value: 1 mg/m ³
REL	Long-term value: 0.015 mg/m ³ as Ni; See Pocket Guide App. A
TLV	Long-term value: 1.5* mg/m ³ elemental, *inhalable fraction
1313-99-1 nickel monoxide	
PEL	Long-term value: 1 mg/m ³ as Ni
REL	Long-term value: 0.015 mg/m ³ as Ni; See Pocket Guide App. A
TLV	Long-term value: 0.2 mg/m ³ as Ni; inhalable fraction
7631-86-9 Silicon Dioxide	
ACGH	Short-term value: 3 mg/m ³ Long-term value: 10 mg/m ³
TWA	Short-term value: 6 mg/m ³ Long-term value: 4 E mg/m ³
1344-28-1 aluminium oxide	
PEL	Long-term value: 15*; 15** mg/m ³ *Total dust; ** Respirable fraction
REL	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV	Long-term value: 1* mg/m ³ as Al; *as respirable fraction

• **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

• **Exposure controls**

• **Personal protective equipment:**

• **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Use adequate exhaust ventilation to prevent inhalation of dust particles.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

• **Breathing equipment:**



NIOSH/OSHA or EN approved respiratory protection is recommended for use in airborne concentrations exceeding exposure limits.

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· **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.

Select glove material based on penetration times, rates of diffusion and 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. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**



Safety glasses or
Tightly sealed goggles

· **Body protection:**



Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:

Powder

Color:

Grey-black

· **Odor:**

Burnt

· **Odor threshold:**

Not determined.

· **pH-value:**

Not applicable.

· **Change in condition**

Melting point/Melting range:

65.6 °C (150 °F)

Boiling point/Boiling range:

Not determined.

· **Flash point:**

315 °C (599 °F)

· **Flammability (solid, gaseous):**

Highly flammable.

· **Ignition temperature:**

Decomposition temperature:

Not determined.

· **Auto igniting:**

Product is not self-igniting.

· **Danger of explosion:**

Not determined.

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OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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Trade name: Spent Nickel Catalyst

- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor pressure:** Not applicable.
- **Density @ 20 °C (68 °F):** 2.485 g/cm³ (20.737 lbs/gal)
- **Relative density** Not determined.
- **Vapor 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 %
 - Solids content:** 100.0 %
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** Toxic combustion products may be evolved in a fire.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
 - Avoid all sources of ignition: heat, sparks and open flames.
 - Avoid heat and humidity.
- **Incompatible materials:** Organic vapors, mineral acids, oxidizers and reducing agents.
- **Hazardous decomposition products:**
 - Flammable hydrogen gas will be given off if product is in contact with mineral acids.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
 - on the skin:** May cause an allergic skin reaction.
 - on the eye:**
 - May cause eye irritation.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
 - The product shows the following dangers according to internally approved calculation methods for preparations:
 - Irritant
 - Carcinogenic.

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Trade name: **Spent Nickel Catalyst**

• **Carcinogenic categories**

• **IARC (International Agency for Research on Cancer)**

14464-46-1	crystalite	1
7440-02-0	Nickel	1
1313-99-1	nickel monoxide	1
7631-86-9	Silicon Dioxide	3

• **NTP (National Toxicology Program)**

14464-46-1	crystalite	K
7440-02-0	Nickel	R
1313-99-1	nickel monoxide	K

• **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

12 Ecological information

• **Toxicity**

• **Aquatic toxicity:**

7440-02-0 Nickel

EC50 1.0 mg/l (Water flea)

• **Persistence and degradability** No further relevant information available.

• **Behavior in environmental systems:**

• **Bioaccumulative potential** No further relevant information available.

• **Mobility in soil** No further relevant information available.

• **Additional ecological information:**

• **General notes:**

Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.

• **Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

• **Other adverse effects** No further relevant information available.

13 Disposal considerations

• **Waste treatment methods**

• **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

• **Uncleaned packagings:**

• **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

• **UN-Number**

• **DOT, ADR, IMDG, IATA** UN2930

• **UN proper shipping name**

• **DOT** Toxic solids, flammable, organic, n.o.s.

• **ADR** UN2930 Toxic solids, flammable, organic, n.o.s.

• **IMDG, IATA** TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.

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Trade name: Spent Nickel Catalyst

· **Transport hazard class(es)**

· **DOT**



- **Class** 6.1 Toxic substances
- **Label** 6.1, 9

· **ADR**



- **Class** 6.1 Toxic substances
- **Label** 6.1+9

· **IMDG**



- **Class** 6.1 Toxic substances
- **Label** 6.1/9

· **IATA**



- **Class** 6.1 Toxic substances
- **Label** 6.1 (9)
- **Packing group** III
- **DOT, ADR, IMDG, IATA** III
- **Environmental hazards:** Not applicable.
- **Special precautions for user** Warning: Toxic substances
- **EMS Number:** F-A,S-G
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** UN2930, Toxic solids, flammable, organic, n.o.s., 6.1 (9), III

*** 15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

7440-02-0	Nickel
1313-99-1	nickel monoxide

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Trade name: Spent Nickel Catalyst

1344-28-1	aluminium oxide	
<ul style="list-style-type: none"> • TSCA (Toxic Substances Control Act): All ingredients are listed. • California Proposition 65 • Chemicals known to cause cancer: 		
14464-46-1	cristobalite	
7440-02-0	Nickel	
1313-99-1	nickel monoxide	
<ul style="list-style-type: none"> • Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed. • Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed. • Chemicals known to cause developmental toxicity: None of the ingredients are listed. 		
<ul style="list-style-type: none"> • Carcinogenic categories • EPA (Environmental Protection Agency) None of the ingredients are listed. • TLV (Threshold Limit Value established by ACGIH) 		
14464-46-1	cristobalite	A2
7440-02-0	Nickel	A5
1313-99-1	nickel monoxide	A1
1344-28-1	aluminium oxide	A4
<ul style="list-style-type: none"> • NIOSH-Ca (National Institute for Occupational Safety and Health) 		
14464-46-1	cristobalite	
7440-02-0	Nickel	
1313-99-1	nickel monoxide	

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

cristobalite
Vegetable Oil, hydrogenated
Nickel
nickel monoxide
Silicon Dioxide

- **Hazard statements**

Flammable solid.
May cause eye irritation.

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OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 04/28/2015

Trade name: Spent Nickel Catalyst

- May cause an allergic skin reaction.
- May cause cancer.
- May cause respiratory irritation.
- Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
- Wear protective clothing as needed.
- Wear protective gloves as needed.
- Wear eye protection / face protection as needed.
- Ground/bond container and receiving equipment.
- Wash thoroughly after handling.
- Contaminated work clothing must not be allowed out of the workplace.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- If swallowed: Immediately call a poison center/doctor.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call a poison center/doctor if you feel unwell.
- Wash contaminated clothing before reuse.
- IF exposed or concerned: Get medical advice/attention.
- If skin irritation or rash occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- Get medical advice/attention if you feel unwell.
- Do NOT induce vomiting.
- In case of fire: Use for extinction: CO2, sand, extinguishing powder.
- If on skin: Wash with plenty of water.
- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations:

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

State Right to Know

CAS: 14464-46-1 RTECS: VV 7325000	cristobalite ☠ Carc. 1A, H350	30-70%
CAS: 68334-28-1	Vegetable Oil, hydrogenated ⚠ STOT SE 3, H335; Eye Irrit. 2B, H320	30-40%
CAS: 7440-02-0	Nickel ☠ Carc. 2, H351; STOT RE 1, H372; ⚠ Skin Sens. 1, H317	3-12%
CAS: 1313-99-1	nickel monoxide ☠ Carc. 1A, H350; STOT RE 1, H372; ⚠ Skin Sens. 1, H317; Aquatic Chronic 4, H413	3-12%
CAS: 7631-86-9	Silicon Dioxide ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	1-5%

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CAS: 1344-28-1	aluminium oxide	1-3%
RTECS: BD 1200000	⚠ STOT SE 3, H335	
All ingredients are listed.		

- **Information about limitation of use:**
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Date of preparation / last revision** 04/28/2015 / 5
- **Abbreviations and acronyms:**
 - ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 - ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - ACGIH: American Conference of Governmental Industrial Hygienists
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - NFPA: National Fire Protection Association (USA)
 - HMIS: Hazardous Materials Identification System (USA)
 - Flam. Sol. 2: Flammable solids, Hazard Category 2
 - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 - Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
 - Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
 - Carc. 1A: Carcinogenicity, Hazard Category 1A
 - Carc. 2: Carcinogenicity, Hazard Category 2
 - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 - STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
 - Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4
- *** Data compared to the previous version altered.**

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