SAFETY DATA SHEET
(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
   Product name : NZCC ULTRAFINE H
   Product code : ULTRAFINEH.
   REACH Registration n°: Exempted in accordance with Annex V.7.

1.2. Relevant identified uses of the substance or mixture and uses advised against
   Ceramics (Tableware, figurine, porcelain, bone china, glazes, automotive catalyst substrate, molecular sieve etc)

1.3. Details of the supplier of the safety data sheet
   Registered company name : IMERYS CERAMICS New Zealand.
   Address : Matauri Bay Road - PO Box 14., Kerikeri, New Zealand.
   Telephone : +64 (0)9 405 0077.     Fax : +64 (0)9 405 0547.
   Contact: info@imerys-ceramics.com
   Site: www.imerys-ceramics.com

1.4. Emergency telephone number : +1 703 527 3887.
   Association/Organisation : CHEMTREC.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
   In compliance with EC regulation No. 1272/2008 and its amendments.
   Specific target organ toxicity (repeated exposure), Category 2 (STOT RE 2, H373).
   This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.
   This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.
   This product contains fine fraction of quartz as an impurity and therefore is classified as STOT RE2 according to criteria defined in the Regulation EC 1272/2008.
   This product should be handled with care to avoid dust generation.

2.2. Label elements
   Possibility of serious noxious effects in the event of repeated or prolonged exposure and by inhalation.
   This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.
   This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements
   In compliance with EC regulation No. 1272/2008 and its amendments.
   Hazard pictograms :
   GHS08
   Signal Word : WARNING
Hazard statements:
H373 May cause damage to organs through prolonged or repeated exposure (if inhaled).

Precautionary statements - Prevention:
P260 Do not breathe dust.
P285 In case of inadequate ventilation wear respiratory protection.

Precautionary statements - Disposal:
P501 Dispose of contents/container in accordance with local regulation.


Hazard symbols:

Risk phrase:
R 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrase:
S 22 Do not breathe dust.
S 38 In case of insufficient ventilation, wear suitable respiratory equipment.

2.3. Other hazards
This product is an inorganic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS
3.1. Substances

Composition:
This product contains between 1% and 10% of quartz (fine fraction), and quartz (fine fraction) is classified as STOT RE1.

<table>
<thead>
<tr>
<th>Information on ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 12068-50-7</td>
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<tr>
<td>REACH: EXEMPT</td>
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<tr>
<td>HALLOYSITE</td>
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<tr>
<td>CAS: 14808-60-7</td>
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<tr>
<td>EC: 238-878-4</td>
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<tr>
<td>QUARTZ</td>
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</tbody>
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SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation:
Movement of the exposed individual from the area to fresh air is recommended.

In the event of splashes or contact with eyes:
No special measure. Wash with copious quantities of water and consult medical physician if necessary.

In the event of splashes or contact with skin:
No special measure.

In the event of swallowing:
Get medical attention if any discomfort continues.
4.2. Most important symptoms and effects, both acute and delayed
No acute and delayed symptoms and effects are observed.

4.3. Indication of any immediate medical attention and special treatment needed
No specific actions are required.

SECTION 5 : FIREFIGHTING MEASURES
Non-flammable.

5.1. Extinguishing media
No specific extinguishing media is needed.

5.2. Special hazards arising from the substance or mixture
Non combustible. No hazardous thermal decomposition.

5.3. Advice for firefighters
No specific fire-fighting protection is required.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Consult the safety measures listed under headings 7 and 8.
Avoid dust formation. In case of exposure to dust over regulatory limits, wear a personal respirator in compliance with national regulation.

6.2. Environmental precautions
No special requirement.

6.3. Methods and material for containment and cleaning up
Avoid dry sweeping and use sprayed water or ventilated vacuum cleaning system to prevent dust formation.

6.4. Reference to other sections
Refer to sections 7, 8 and 13.

SECTION 7 : HANDLING AND STORAGE
Requirements relating to storage premises apply to all facilities where the substance is handled.

7.1. Precautions for safe handling
Always wash hands after handling.
No special handling precautions are required. Good housekeeping procedures should be followed to minimize dust generation and accumulation. In case of insufficient ventilation, wear suitable respiratory equipment. Your supplier can advise you on safe handling, please contact him.
Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier or check the Good Practice Guide referred to in section 16.
Good housekeeping procedures should be followed to minimize dust generation and accumulation. In case of insufficient ventilation, wear suitable respiratory equipment. Your supplier can advise you on safe handling, please contact him.

Recommended equipment and procedures :
For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Do not breathe in dust.
Avoid exposure - obtain special instructions before use.

Prohibited equipment and procedures :
No smoking, eating or drinking in areas where the substance is used.

7.2. Conditions for safe storage, including any incompatibilities
Minimise airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting.
7.3. Specific end use(s)
If you require advice on specific uses, please contact your supplier or check the Good Practice Guide referred to in section 16.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust, respirable crystalline silica dust).

Occupational exposure limits:
The OEL (Occupational Exposure Limit) for respirable crystalline silica dust is 0.1 mg/m³ in the United Kingdom, measured as an 8 hour TWA (Time Weighted Average). For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority.

- France (INRS - ED984:2008):
  CAS VME-ppm : VME-mg/m³ : VLE-ppm : VLE-mg/m³ : Notes : TMP No :
  14808-60-7 - 0.1 A - - - 25

8.2. Exposure controls

Suitable technical inspections
Minimise airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit.

Apply organisational measures, e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing.

Personal protection measures, such as personal protective equipment
Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection
  Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.

- Hand protection
  Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session.

- Body protection
  Protection recommended for workers who suffer from dermatitis or sensitive skin.

- Respiratory protection
  Avoid breathing dust.

  Type of FFP mask:
  Wear a disposable half-mask dust filter in accordance with standard EN149.

  Category:
  FFP3

Where airborne dust concentrations are expected to exceed regulatory exposure limits, personal respirators that complies with the requirement of national legislation should be used.
In case of prolonged exposure to airborne dust concentrations, wear a respiratory protective equipment that complies with the requirements of European or national legislation.

Exposure controls linked to environmental protection
Avoid wind dispersal.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

**General information:**
- Physical state: Powder or dust.
- Odour: Odourless.

**Important health, safety and environmental information**
- pH: Neutral.
- Boiling point/boiling range: Not specified.
- Flash point interval: Not relevant.
- Vapour pressure (50°C): Not relevant.
- Density: < 1
- Water solubility: Insoluble.
- Melting point/melting range: Not specified.
- Self-ignition temperature: Not specified.
- Decomposition point/decomposition range: Not specified.

**9.2. Other information**
- Relative density 2.6 g/cm³

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
- Inert, not reactive.

10.2. Chemical stability
- Chemically stable.

10.3. Possibility of hazardous reactions
- No hazardous reactions.

10.4. Conditions to avoid
- Not relevant.

10.5. Incompatible materials
- No particular incompatibility.

10.6. Hazardous decomposition products
- Not relevant.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
- May cause severe damage to organs in the event of repeated or prolonged exposure.

11.1.1. Substances
- No toxicological data available for the substances.

**Acute toxicity:**
- Based on available data, the classification criteria are not met.

**Skin corrosion/skin irritation:**
- Based on available data, the classification criteria are not met.

**Serious damage to eyes/eye 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.

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 toxicant:
Based on available data, the classification criteria are not met.

Specific target organ systemic toxicity - single exposure:
Based on available data, the classification criteria are not met.

Specific target organ systemic toxicity - repeated exposure:
This product contains respirable quartz as an impurity and therefore is classified as STOT RE2 according to criteria defined in the Regulation EC 1272/2008.
Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.
In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated.
(IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)
In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis.
“Their is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry).
Therefore preventing the onset of silicosis will also reduce the cancer risk... (SCOEL SUM Doc 94-final, June 2003).
So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required (see section 16 below).

Aspiration hazard:
Based on available data, the classification criteria are not met.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity
Not relevant.

12.1.1. Substances
No aquatic toxicity data available for the substances.

12.2. Persistence and degradability
Not relevant.

12.3. Bioaccumulative potential
Not relevant.

12.4. Mobility in soil
Negligible.

12.5. Results of PBT and vPvB assessment
Not relevant.

12.6. Other adverse effects
No specific adverse effects known.
SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the substance and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Waste :
Where possible, recycling is preferable to disposal. Can be disposed of in compliance with local regulations.

Soiled packaging :
Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles.
Recycling and disposal of packaging should be carried out in compliance with local regulations. The re-use of packaging is not recommended. Recycling and disposal of packaging should be carried out by an authorised waste management company.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.
UN number: Not relevant.

SECTION 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Particular provisions :
No data available.

15.2. Chemical safety assessment
Exempted from REACH Registration in accordance with Annex V.7.

SECTION 16 : OTHER INFORMATION

Since the user’s working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.
The information in this safety data sheet must be regarded as a description of the safety requirements relating to the substance and not as a guarantee of the properties thereof.

A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it was signed on 25 April 2006. This autonomous agreement, which receives the European Commission’s financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 October 2006.
TRAINING: Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

SOCIAL DIALOGUE AGREEMENT: A multi-sectoral social dialogue agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it was signed on 25 April 2006.

This autonomous agreement, which receives the European Commission’s financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25 October 2006.
The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from http://www.nepsi.eu and provide useful information and guidance for the handling of products containing respirable crystalline silica.