ANSI/NSC 373 and NSC Chain of Custody
Sustainable Production of Natural Dimension Stone Certification Process
Agenda

Presented by Jamie Bush, Business Development Manager, NSF International
1. Overview of NSF International
2. Overview of Natural Stone Council (NSC)
3. Overview of ANSI/NSC 373 & NSC Chain of Custody Standard
4. Review of Certification process

Presented by Mahya Wood, Toxicologist, NSF International
5. How to assess your chemicals?

Presented by Brenda Edwards, Owner of TexaStone Quarries
6. Certification Experience

Q&A - All participate
NSF International

NSF International is an independent, not-for-profit, non-governmental public health and safety organization.

Our mission and focus has always been protecting and improving human health and the environment!
An Unmatched Professional Staff and Facility

- 1,700+ experienced professionals: microbiologists, toxicologists, chemists, engineers and public health experts
- 254,000+ square feet of state-of-the-art laboratories in North America, Europe, Latin America and Asia, plus partner labs around the world
- NSF laboratories are ISO/IEC 17025 accredited (testing and calibration), and provide a wide range of testing, certification and technical services for a wide range of industries
- NSF’s Applied Research Center provides custom research and development services including contract method development, testing and consulting services in chemistry, microbiology, genomics and toxicology, product claim verification, lab quality/management, methods training and human health risk assessment
Leader in Sustainability Certifications

- NSF/ANSI 140     Carpet
- NSF/ANSI 332    Resilient floor coverings
- NSF/ANSI 336    Commercial furnishing fabric
- NSF/ANSI 342    Wallcovering products
- NSF/ANSI 347    Single ply roofing membranes
- NSF/GCI 355     Greener Chemical Products & Processes
- NSF 391        Service providers
- BIFMA e3/ANSI  Furniture
- **ANSI/NSC 373**  Natural Dimension Stone
- Launch of sustainability standards for all water-related distribution and treatment products
  - Expected completion in early 2015
First Speaker

Jamie Bush, Business Development Manager, NSF
Who is the NSC?

• Collaboration of businesses and trade associations

• Joined forces to promote the use of natural stone

• Commercial, residential, government, institutional and educational applications

• Interior and exterior

• Increase the understanding, preference for and consumption of natural stone
The purpose of the Sustainability Assessment for Natural Dimension Stone is to recognize sustainability practices in the natural stone industry. The standard establishes a set of environmental, ecological, social responsibility and human health metrics through a multi-stakeholder, science based approach.
Scope of ANSI/NSC 373

ANSI/NSC 373 Standard applies to all processors of natural stone, from quarry operations through final stone fabrication, and is intended to allow for both domestic and international market participation from natural dimension stone producers.
ANSI/NSC 373 Overview

10 Subject Categories:
- Section 5: Water (max 6 points)
- Section 6: Custody & transportation (2 required credits only)
- Section 7: Site management (max 4 points)
- Section 8: Land reclamation & adaptive reuse (max 7 points)
- Section 9: Corporate governance (max 2 points)
- Section 10: Energy (max 7 points)
- Section 11: Management of excess process materials & solid waste (max 5 points)
- Section 12: Safer Chemical & material management (max 7 points)
- Section 13: Human health and safety (max 2 points)
- Section 14: Innovation (max 4 points)
There are 4 levels of Sustainable Product Achievement Certification:

- **Bronze**: All required criteria for each facility operator
- **Silver**: All required criteria and a minimum of 8 points
- **Gold**: All required criteria and minimum 15 of points
- **Platinum**: All required criteria and minimum of 22 points

There are a total of 40 points that can be achieved.
NSC Chain of Custody Standard is the standard that applies for the certification of all Chain of Custody operations and may be combined with certification to ANS/NSC 373 Sustainability Assessment for Natural Dimension Stone, according to the scope of the organization’s activities.

For a product to be claimed as Genuine Stone certified, there must be an unbroken chain of certified organizations covering every change in the legal ownership of product from the certified quarry up to the point where the product is finished or sold to retail.
Overview and Scope of Chain of Custody Standard

The Chain of Custody Standard specifies the management and production requirements for chain of custody control with respect to sourcing, labeling (where applicable) and sale of products as Genuine Stone certified.

The standard defines and addresses the basic elements of a Chain of Custody management system, which includes:

- Quality management
- Material receipt and storage
- Volume control
- Sales and Delivery
- General labeling requirements
- Outsourcing
Benefits of NSC 373 & Chain of Custody Certification

• Distinguish “green” stone from competitors and enhance your brand.
• Obtain preferred vendor status from those seeking sustainable solutions.
• Meet State and Federal procurement guidelines
• Save money by adopting more sustainable operational practices and business approaches.
• Achieve the most credible type of certification available in the marketplace
• ANSI/NSC 373 has a Chain of Custody (CoC) program
The Certification Process
1. Purchase the standard from the NSC web site [http://naturalstonecouncil.org/shop/](http://naturalstonecouncil.org/shop/)

2. Complete an information form indicating
   - Type of certification (NSC 373 or Chain of Custody)
   - Location and number of sites
   - Type of stone (if applicable)
   - Level of Certification (NSC 373 only)
   - Description of operations

3. NSF will develop a proposal based on the information form.

4. Once the proposal is accepted, an application and contract will be submitted to NSF for Certification.

5. Once an application and contract is received by NSF, we will provide tools to assist in the Certification process.
TOOLS for NSC 373

• **Audit Point Matrix**
  – Tool to help track points throughout the Certification process

• **Guidance Document**
  – This document provides guidance on each credit in NSC 373 regarding what type of documentation NSF will be looking for in the document review.
  – Formulated spreadsheets

• **Kick Off Call**
  – Review audit process, discuss how to submit documentation, review timelines, answer questions.
  – Introduction to your Project Manager

• **Toxicology webinar on “how to assess your chemicals”**
  – 12.1, 12.3 and 12.4
### Audit Point Matrix

#### Example of Audit Point Matrix

<table>
<thead>
<tr>
<th>Section</th>
<th>NSC 373 - Sustainability Assessment for Natural Dimension Stone</th>
<th>Max. Allowed Points</th>
<th>Points Applied</th>
<th>Granted Doc Review</th>
<th>Contingent On Site Audit</th>
<th>Granted On-Site Audit</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Required - Water Inventory</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>5.2.1</td>
<td>Required - Recycled water (minimum of 25%)</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>5.2.2</td>
<td>Recycled water (26%-89%)</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>5.3.1</td>
<td>Enhanced water treatment</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>5.3.2</td>
<td>Enhanced sludge management</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>5.3.3</td>
<td>Water reuse</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>6</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td>6.1</td>
<td>Required - Transportation activity tracking and management program</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>6.2</td>
<td>Required - Chain of custody documentation</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td>7.1</td>
<td>Required - Site management plan</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>7.2.1</td>
<td>Ecosystem boundaries</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>7.2.2</td>
<td>Environmental impact assessment</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>7.3</td>
<td>Verification of site management plan</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>4</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td>8.1</td>
<td>Required - Post closure reclamation plan</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>8.2</td>
<td>Community involvement</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>8.3</td>
<td>Exemplary site closure</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>4</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td>9.1</td>
<td>Required - Prohibitions on forced labor</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>9.2</td>
<td>Required - Prohibitions on child labor</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>9.3</td>
<td>Required - Prevention of discrimination</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>4</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>TOTAL POINTS</strong></td>
<td></td>
<td><strong>31</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td></td>
<td><strong>31</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

**CERTIFICATION LEVEL**

0
Certification Preparation

In addition to the tools NSF provides, we recommend the following in preparing for certification:

1. Define products and sites
2. Complete the point matrix
   - It is a good idea to go for more points than you need for a Certification.
3. Establish an internal team to gather documentation for NSC 373 Certification.
   - Responsibility for documentation submission often given to one person to gather information from operations, engineering, maintenance, HR. etc. Using a cross-functional team may speed up data and document...
Certification Process Flow

Document Review → Follow-up → On-Site Audit → Follow-up → Certification
• **Off-site Documentation Review**
  – Most time intensive step
  – The on-site audit will not be scheduled until the document review is complete.

• **Supporting documentation is needed for each credit, this document may include:**
  – Summary tables;
  – Excel spreadsheets tools;
  – Reports;
  – Do not need to send source data (e.g. utility records) unless it is easy to do so (e.g., test results).
Document Review - What we look for?

• Is the information technically correct?
• Are all involved plants included?
• Are the performance period/baseline years correct?
• Were all parts of a numbered requirement met?
Document Review Results

Once the documentation is received by NSF

- We divide it up and send it to various specialists for review
- A detailed documentation review is conducted for each credit applied for.
- Results of the document review are documented on a point matrix and sent to you prior to the on-site audit.
- NSF creates a specific list of on-site audit items for your facility based on the results of the document review.
Scheduling On-Site audit

• Once your document review is complete and majority of the requirements are met or are in “Contingent On-Site” status, your Project Manager will schedule your audit.

• Before your audit date, you will receive an agenda that includes the following:
  
  – Opening Meeting/Closing meeting
  – Tour of Facility
  – List of items to be confirmed
On-Site Audit

- The on-site audit is a confirmatory (not exploratory audit). The purposes are:
  - Confirm if what we see on-site matches what was submitted via the document review.
  - Audit to requirements that can only be audited on-site (e.g., confidential information)
- The auditor will work with you to develop an audit schedule.
  - Interviews are usually limited to those involved in reporting/gathering documentation.
- During the opening and closing meeting the auditor will provide an overview of the process and findings.
- Your Project Manager will provide a report of items following the audit.
NSC 373 Certification Audit Cycle

3 Year Audit Cycle

**Year 1: Newly Certified**
- Full certification review
- Document Review
- On-site audit

**Year 2 and 3 Surveillance Review**
- Document review only

**Year 4 Recertification Review**
- Document review
- On-site audit

NOTE: Quarries and Processors can be upgraded to a higher level of Certification at any time
- Depending on the points you apply for, we may not need to go back on-site.
Chain of Custody Certification Audit Cycle

3 Year Audit Cycle

Year 1: Initial Review
- Initial Documentation Review
- On-site audit

Year 2 and 3 Review
- On-site audit

Year 4 Recertification Review
- Documentation review
- On-site audit

NOTE: On-site audits for Chain of Custody will be performed every year.
Certified Listing

• Once a quarry, processor or distributor has achieved NSC Certification, it will be listed on the NSF website (www.nsf.org). The listing will include the following:
  – Company name and address;
  – Facility location;
  – Sustainability achievement level (NSC 373 only);
  – Certification number;
  – Certification period.

• Your clients will be able to directly reference a Certified product on www.nsf.org and pull up a printable certificate.
How to Assess Your Chemicals

Presented by Mahya Wood, Toxicologist, NSF International
12.1 Required – Chemical Inventory

- **Inventory**
  - Includes all chemicals used in:
    - Quarry operations
    - Primary processing of stone
  - Excludes chemicals used in maintenance.

- **MSDS required for every material on inventory** (or an explanation of why material is exempt).

- **Trade name and supplier on inventory form must match MSDS.**

- **MSDS level of disclosure of chemicals is sufficient.**
# NSF Inventory Form

<table>
<thead>
<tr>
<th>Alternate Supplier? (enter same letter for alternate suppliers, e.g. &quot;A&quot;)</th>
<th>Material Trade Name Appearing on MSDS</th>
<th>Material Manufacturer Name Appearing on MSDS</th>
<th>Material Distributor</th>
<th>Ingredients (CAS#s) listed on MSDS</th>
<th>MSDS attached (check here)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Solv 500</td>
<td>Chemical Company X</td>
<td>Quick Supply</td>
<td>Ethanol (64-17-5) + Methanol (67-56-1)</td>
<td>X</td>
</tr>
</tbody>
</table>

---

**Notes:**

- MSDS attached (check here):
  - X (checked)
Example MSDS – Chemical Information

- The “composition section”.

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Flam. Liq. 2; H225</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td></td>
<td>Index-No. 603-002-00-5</td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301 + H311 + H331, H370</td>
<td>&gt;= 1 - &lt; 5 %</td>
</tr>
<tr>
<td></td>
<td>Index-No. 603-001-00-X</td>
<td></td>
</tr>
</tbody>
</table>

Ingredients (CAS#s) listed on MSDS
- Ethanol (64-17-5) + Methanol (67-56-1)
Example MSD – Chemical Information

• The “regulatory section”

15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>2007-07-01</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>2007-03-01</td>
</tr>
</tbody>
</table>

Pennsylvania Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>2007-03-01</td>
</tr>
</tbody>
</table>

New Jersey Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>2007-03-01</td>
</tr>
</tbody>
</table>

California Prop. 65 Components
WARNING: This product contains a chemical known to the

Ingredients (CAS#s) listed on MSDS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
</tr>
</tbody>
</table>
## NSF Inventory Form

<table>
<thead>
<tr>
<th>Use</th>
<th>Storage</th>
<th>Annual Quantity purchased (unit of volume or weight)</th>
<th>Annual Quantity purchased (Dollars)</th>
<th>Annual Quantity Stored (unit of volume or weight)</th>
<th>MSDS reportable Physical Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe use</td>
<td>4L bottles in vented chemical cabinet</td>
<td>400 L</td>
<td>$3,000</td>
<td>400 L</td>
<td>Flammable</td>
</tr>
</tbody>
</table>
List Annex A **Priority Chemicals of Concern** as disclosed on MSDS or by Supplier. List each Priority COC with the following information: Chemical name, CAS#, and Concern Designation

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Concern Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (64-17-5)</td>
<td>64-17-5</td>
<td>IARC Group 1 Agent is Carcinogenic to Humans +</td>
</tr>
<tr>
<td>Methanol (67-56-1)</td>
<td>67-56-1</td>
<td>US NIH A-Clear evidence of adverse developmental toxicant effects, Prop 65 Developmental toxicity</td>
</tr>
</tbody>
</table>

List Annex A **Secondary Chemicals of Concern** as disclosed on MSDS or by Supplier. List each secondary COC with the following information: Chemical name, CAS# and Concern Designation

See Annex A for Priority Chemicals of Concern and Secondary Chemicals of Concern.
Annex A

Informational Sources

The following resources are all considered authoritative sources of environmental and human health hazard data.

**A.1 Priority chemicals of concern**

CAL-EPA Proposition 65 – Known to cause cancer or reproductive toxicity.

State of California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (<OEHHA>)

(http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html)

ECHA REACH SVHC - Reason for inclusion: Carcinogenic, Toxic for Reproduction, Mutagenic, Endocrine activity or PBT European Union - European Chemicals Agency


European Commission Directive 76/769 Carcinogen, mutagens, and reproductive Toxins (CMRs):
Annex A

Informational Sources
The following resources are all considered authoritative sources of environmental and human health hazard data.

A.2 Secondary chemicals of concern
Association of Occupational and Environmental Clinics (AOEC) Exposure Code List [30].
a) AOEC Asthmagens – Sensitizer induced asthmagens (Rs or Rrs)
<http://www.aoec.org/tools.htm>

European Union - European Chemicals Agency
a) ECHA REACH SVHC - Reason for inclusion:vPvB

US Environmental Protection Agency, Ozone Layer Depletion Program
a) US EPA Ozone Ozone Depleting Substances- Class I and Class II
Chemicals of Concern- Option 2: Subscribe to a list-screening service

• Pharos
• SciVera
• The Wercs
...and others

• Which list?
• Which concern?
• Priority, secondary or both?
Chemicals of Concern - Option 2: Subscribe to a list-screening service

### Chemicals and Materials

<table>
<thead>
<tr>
<th>CAS RN</th>
<th>Material Name</th>
<th>Hazard</th>
<th>GreenScreen</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>Alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Specially denatured ethyl alcohol S.D.A.G. no 1-b (95% vol.) (aos)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Specially denatured ethyl alcohol S.D.A.G. no 1-c (95% vol.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Specially denatured ethyl alcohol S.D.A.G. no 1-f (95% vol.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Specially denatured ethyl alcohol S.D.A.G. no 1-p (95% vol.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Specially denatured ethyl alcohol S.D.A.G. no 1-p (anhydrous)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Specially denatured ethyl alcohol S.D.A.G. no 1-s (95% vol.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Specially denatured ethyl alcohol S.D.A.G. no 1-xs (95,5 vol.) - spirex s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Specially denatured ethyl alcohol S.D.A.G. no 1-xs (95% vol.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64-17-5</td>
<td>Specially denatured ethyl alcohol S.D.A.G. no 1-xs (anhydrous) - spirex s</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chemicals of Concern

[64-17-5] Alcohol

Direct Hazards:

- **CANCER**: Intnl Agency for Rsrch on Cancer - Cancer Monographs - Group 1: Agent is carcinogenic to humans
- **REPRODUCTIVE**: Japan METI/MOE - GHS Classifications - Toxic to reproduction - Category 1A
- **DEVELOPMENTAL**: German MAK - List of Substances - Pregnancy Risk Group C
- **MAMMALIAN**: Japan METI/MOE - GHS Classifications - Specific target organs/systemic toxicity following repeated exposure - Category 1
## Chemicals of Concern

<table>
<thead>
<tr>
<th>Pharos Search Terms</th>
<th>Concern Flagged on Annex A</th>
<th>Priority or Secondary COC</th>
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<tbody>
<tr>
<td>Cal/EPA</td>
<td>- <a href="#">Chemicals Known to Cause Cancer &amp; Reproductive Toxicity</a></td>
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<td>SVHC</td>
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<tr>
<td></td>
<td>- Endocrine activity</td>
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<tr>
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<td>- vPvB</td>
<td>Secondary</td>
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<td>Priority Endocrine Disruptors</td>
<td>- Category 1 endocrine disruptor</td>
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<td></td>
<td>- Category 2 endocrine disruptor</td>
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<tr>
<td>Intnl Agency for Rsrch on Cancer</td>
<td>- Group 1 or Group 2A</td>
<td>Priority</td>
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<tr>
<td>Priority PBT</td>
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<tr>
<td>US NIH - Reproductive &amp; Developmental</td>
<td>- Clear Evidence of adverse developmental toxicant effect</td>
<td>Priority</td>
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### Chemicals and Materials

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<tr>
<th>CAS RN</th>
<th>Material Name</th>
<th>Hazard</th>
<th>GreenScreen</th>
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<tr>
<td>67-56-1</td>
<td>METHANOL</td>
<td>Red</td>
<td>LT-1</td>
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<tr>
<td>867-56-1</td>
<td>sodium (S)-lactate</td>
<td>Blue</td>
<td>LT-UNK</td>
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</table>
Chemicals of Concern

Direct Hazards:

DEVELOPMENTAL
- US NIH - Reproductive & Developmental Monographs - Clear evidence of adverse developmental toxicant effects
- Cal/EPA - Chemicals Known to Cause Cancer & Reproductive Toxicity - Developmental toxicity
- German MAK - List of Substances - Pregnancy Risk Group C

MAMMALIAN
- EC - CLP/GHS Hazard Statements - H311 Toxic in contact with skin

ORGAN TOXICANT
- EC - Risk Phrases - R39: Danger of very serious irreversible effects.

FLAMMABLE
- EC - CLP/GHS Hazard Statements - H225 Highly flammable liquid and vapour.

NEUROTOXICITY
- Lancet - Grandjean & Landrigan Neurotoxic Chemicals - Known to be neurotoxic in man

EYE IRRITATION
- New Zealand HSNO/GHS - 6.4A - Irritating to the eye

TERRESTRIAL
- New Zealand HSNO/GHS - 9.3C - Harmful to terrestrial vertebrates
# Chemicals of Concern

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</table>
## Chemicals of Concern

### Potential Residual Hazards:

See Life Cycle Research tab for details on residuals and other substances used in manufacture.

<table>
<thead>
<tr>
<th>Category</th>
<th>Hazard Description</th>
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<tbody>
<tr>
<td><strong>GENE MUTATION</strong></td>
<td>New Zealand HSNO/GHS - 6.6A - Known or presumed human mutagens ✴</td>
</tr>
<tr>
<td><strong>DEVELOPMENTAL</strong></td>
<td>German MAK - List of Substances - Pregnancy Risk Group C ✴</td>
</tr>
<tr>
<td><strong>RESPIRATORY</strong></td>
<td>AOEC - Asthmagens - Asthmagen (ARs) - sensitiser-induced - inhalable forms only ✴</td>
</tr>
<tr>
<td><strong>MAMMALIAN</strong></td>
<td>New Zealand HSNO/GHS - 6.1B (inhalation) - Acutely toxic ✴</td>
</tr>
<tr>
<td><strong>ACUTE AQUATIC</strong></td>
<td>EC - CLP/GHS Hazard Statements - H400 - Aquatic Acute 1 - Very toxic to aquatic life ✴</td>
</tr>
<tr>
<td><strong>CHRON AQUATIC</strong></td>
<td>EC - CLP/GHS Hazard Statements - H410 - Aquatic Chronic 1 - Very toxic to aquatic life with long lasting effects ✴</td>
</tr>
<tr>
<td><strong>TERRESTRIAL</strong></td>
<td>New Zealand HSNO/GHS - 9.3A - Very ecotoxic to terrestrial vertebrates ✴</td>
</tr>
<tr>
<td><strong>EYE IRRITATION</strong></td>
<td>New Zealand HSNO/GHS - 6.4A - Irritating to the eye ✴</td>
</tr>
<tr>
<td><strong>SKIN SENSITIZE</strong></td>
<td>New Zealand HSNO/GHS - 6.5B (contact) - Contact sensitisers ✴</td>
</tr>
</tbody>
</table>
Complete your form

List Annex A **Priority** Chemicals of Concern as disclosed on MSDS or by Supplier. List each Priority COC with the following information: Chemical name, CAS#, and Concern Designation.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Concern Designation</th>
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<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>IARC Group1 Agent is Carcinogenic to Humans</td>
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<td>Methanol</td>
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<td>US NIH A-Clear evidence of adverse developmental toxicant effects, Prop 65 Developmental toxicity</td>
</tr>
</tbody>
</table>

List Annex A **Secondary** Chemicals of Concern as disclosed on MSDS or by Supplier. List each secondary COC with the following information: Chemical name, CAS# and Concern Designation.
The Certification Experience

Brenda Edwards, Owner TexaStone
TexaStone Quarries
TexaStone Quarry - Recycling
TexaStone Processing
Questions?

Copies of ANSI/NSC 373 can be purchased at http://naturalstonecouncil.org/shop/

Need more information? Contact Jamie Bush at 734-827-5668 or sustainability@nsf.org