ULTRAMARINE BLUE

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Identification:  
Company: NUBIOLA INC.  
Address: 6369 Peachtree Street  
Norcross, GA 30071  
Tel. Number: 770-338-4990

For chemical emergency, spill, leak, fire, exposure, or accidents call CHEMTREC:  
Domestic North America, call: 800-424-9300  
International, call: 703-527-3887 (collect calls accepted)

Product Name: ULTRAMARINE BLUE, NUBIX, NUBIPERF, NUBIFLOW, NUBICOAT HTS, NUBICOAT HWR

Synonyms: No information available

Potential Health Effects

1. Skin: May cause skin irritation and allergic reaction in special sensitive persons.
2. Eyes: May cause eyes irritation.
3. Inhalation: Dust may cause irritation to the respiratory tract. Symptoms may include coughing.
4. Ingestion: Extremely large oral dosages may produce gastrointestinal tract irritation with nausea, vomiting and diarrhea.
5. Chronic information: n.a.

Replaces version dated: March 29, 2011
SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Percent</th>
<th>CAS Number</th>
<th>RTECS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Aluminium Sulphosilicate Pigment Blue 29 C.I. 77007</td>
<td>100</td>
<td>57455-37-5</td>
<td>---</td>
</tr>
</tbody>
</table>

SECTION 4 – FIRST AID MEASURES

SEEK IMMEDIATE MEDICAL ATTENTION FOR ALL CASES OF OVEREXPOSURE

**Skin:** Immediately wash skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and thoroughly clean before reuse. Seek medical attention.

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention.

**Inhalation:** Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

**Ingestion:** Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed to do so by a physician.

**Note to Physician:** Treat symptomatically and supportively.
ULTRAMARINE BLUE

SECTION 5 – FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Flammability Properties:</th>
<th>Non combustible. Not considered to be a fire hazard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point / Method:</td>
<td>Not flammable.</td>
</tr>
<tr>
<td>Flammability Limits (in air % by volume):</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>LEL:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>UEL:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Auto ignition Temperature:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Hazardous Combustion Products:</td>
<td>Sulphur dioxide gas may be released at temperatures above 400 ℃.</td>
</tr>
<tr>
<td>Extinguishing Media:</td>
<td>Water, dry chemical foam, or alcohol-resistant foam.</td>
</tr>
<tr>
<td>Firefighting instructions:</td>
<td>As in any fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.</td>
</tr>
</tbody>
</table>
MATERIAL SAFETY DATA SHEET

ULTRAMARINE BLUE

SECTION 6 – ACCIDENTAL RELEASE MEASURES

General Information: Wear appropriate personal protective equipment as specified in Section 8.

Spills / Leaks: Take up and containerize any spills for reclamation or disposal. US CERCLA Regulations require reporting spills and releases to soil, water, and air in excess of reportable quantities.

SECTION 7 – HANDLING AND STORAGE PROCEDURES

Handling: Avoid breathing dust. Avoid contact with skin or eyes. Wash thoroughly after handling. Keep container tightly closed. Wear appropriate personal protective equipment as specified in Section 8.

Storage: Store in a tightly closed container in a cool, dry location away from incompatible substances.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Respiratory Protection: A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements for European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Skin Protection: Wear appropriate protective clothing and gloves to prevent skin exposure.

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles to prevent eye exposure.

To be continued

REPLACES VERSION DATED: March 29, 2011
SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued)

Exposure Limits: Total dust (insoluble particles)

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA Final PEL’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceiling Value &lt; 10 mg/m³ (8 hours)</td>
<td>TWA &lt; 5 mg/m³ (8 hours)</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 9 – PHYSICAL / CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Blue</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>pH</td>
<td>7-9 (ASTM 1208-78)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>400 °C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&gt; 1000 °C</td>
</tr>
<tr>
<td>Vapour Pressure (mm Hg)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour Density (Air=1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Specific Gravity/Density</td>
<td>2.35 g/cm³ (water = 1)</td>
</tr>
</tbody>
</table>

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, dust generation, combustible materials, moisture. Above 400°C sulphur dioxide gas is released.

Incompatibility: Strong Acids and Bases. Hydrogen sulphide may be released in contact with acids.

To be continued
SECTION 10 – STABILITY AND REACTIVITY (Continued)

Hazardous Decomposition Products: Sulphur dioxide, hydrogen sulphide
Hazardous Polymerization: None

SECTION 11 – TOXICOLOGICAL INFORMATION

LD$_{50}$ (oral) > 10000 mg/kg (rats)
Chronic / Carcinogenicity: no human carcinogen
Teratology: no teratogenic
Reproduction: no toxic for reproduction
Mutagenicity: no mutagenic
Other Studies: no information available

SECTION 12 – ECOLOGICAL INFORMATION

Environmental Fate: This material is not expected to biodegrade when released into the soil. This material is not expected to significantly bioaccumulate.
LC$_{50}$ (fish) > 32000 mg/kg

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of containers and contents in accordance with all local, state, and Federal requirements.

SECTION 14 – TRANSPORT INFORMATION

D.O.T
Proper Shipping Name: Not regulated.
Hazard Class/LD. No./Packing Group: Not regulated.
Label: Not regulated.
Additional Information: Not regulated.

To be continued
SECTION 14 – TRANSPORT INFORMATION (Continued)

I.M.O./I.M.D.G.
Proper Shipping Name: Not regulated.
Label: Not regulated.
Additional Information: Not regulated.

I.C.A.O./I.A.TA.
Proper Shipping Name: Not regulated.
Label: Not regulated.
Additional Information: Not regulated.

SECTION 15 – REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA: CAS # 57455-37-5 is listed on TSCA inventory.

SARA title III Section 302 Extremely Hazardous Substances (EHS): Since Ultramarine Blues are not EHS and no Threshold Planning Quantity is established, its presence in quantities at or above TPQ does not require any Emergency Planning Notification under 40 CFR Part 355.

SARA title III Section 304 CERCLA Hazardous Substances: Releases in quantities equal to or above their Reportable Quantity are not subject to any Emergency Notification, as no reportable quantity is established under 40 CFR Part 302.

SARA title III Sections 311 / 312: No reporting (Tier I or Tier II) shall be submitted by the facility under 40 CFR Part 370.

Physical Hazards
Fire: None
Sudden Release of Pressure: None
Reactivity: None

Health Hazards
Immediate (Acute): None
Delayed (Chronic): None

To be continued
SECTION 15 – REGULATORY INFORMATION (Continued)

SARA title III Section 313 Toxic Chemicals: No reporting for routine annual toxic chemicals release shall be submitted under 40 CFR Part 372.

FDA

Ultramarine Blue is cleared in 21 CFR:
- Part 178 under §178.3297 (Colorants for Polymers)
- Part 177 under §177.2600 (Colorants in Rubber Articles intended for repeated Use)
- Part 177 under §177.1210 (Closures with sealing gaskets for food containers)
- Part 175 under §175.300 (Resinous and polymeric coatings)
- Part 73 under §73.2725 (Colour Additives Approved for Use in Cosmetics) (Externally applied cosmetics including eye area use)

State Regulations

Ultramarine Blues do not appear on the following state Right to Know lists:
- California Proposition 65
- New Jersey RTK Hazardous Substance List
- Pennsylvania Hazardous Substances List
- Florida Toxic Substance List
- Massachusetts Hazardous Substance List
- Michigan Critical Materials Register
- Minnesota Hazardous Substance List

Others

Canadian Environmental Protection Act Domestic Substances List (DSL)
- Australian Inventory of Chemical Substances (AICS)
- CONEG- Developed Model Toxics in Packaging Legislation

European Regulations

Regulation 1907/2006/EC (REACH): Nubiola registered substance nº: 01-2119488928-13
- European Inventory of Existing Chemical Substances (EINECS): 309-928-3
- Resolution AP 89 (I): use of colorants in plastic materials and articles that may come into contact with foodstuffs.
- Regulation (EC) 1272/2008 (CLP-GHS): Ultramarine Blues are not classified as hazardous substances.
**SECTION 16 – OTHER INFORMATION**

Not all the grades of **Ultramarine Blue** are recommended for cosmetic or food contact applications. Users are asked to contact our technical service for further information.

Nubiola can only guarantee those certified parameters in the Specification Data Sheet of our products. Nubiola is not responsible for any misuse and/or inappropriate handling or storing conditions that may act to the detriment of certified specifications of our products or pose a risk to human health or environment. Due to the fact that there are multitudes of formulations, manufacturing processes and end uses, Nubiola strongly recommends that customers perform previous tests under their own testing program and carry out appropriate verifications in order to determine the ultimate suitability of our products and observe existing laws and legislation. The possibility exists that the EU will not recognize this MSDS due to the fact that several components of the MSDS are reflective of ANSI Z-400.1-1998. Although ILO (International Labour Organization) has adopted ANSI Z-400.1-1998, ultimate disposition lies with the competent authority.

**Modifications to previous issue**

EU Regulations updated