IDENTITY:
Chemical Sodium Alumino Sulphosilicate
C.A.S. Nos. (I) 57455-37-5; C.I. Pigment Blue 29 (9CI)
(ii) 101357-30-6; Silicic acid aluminium sodium salt, sulphurised
EINECS No. (Europe) 3099283
TSCA (USA)
AIECS (Australia) The C.A.S. Number is used
DSL (Canada)
MITI No. (Japan) 1-22
SEPA (China) FC020409 017
Colour Index No. Pigment Blue 29: 77007

DESCRIPTION
Ultramarine 462 is a moderate tinting strength, very red shade Ultramarine blue. It is heat fast, lightfast, very easy to disperse and approved worldwide for use in sensitive applications such as food contact plastics and cosmetics.
While not as strong or bright as other grades in the R.S. Pigments range, Ultramarine 462 can offer a cost effective solution where only limited technical properties are required.
Ultramarine 462 is intended as a general purpose pigment with applications in paint, ink, soap, cosmetics and many other industries. Ultramarine 462 can be used in plastics.

SPECIFICATION:

<table>
<thead>
<tr>
<th>Property</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour 1:4 reduction high impact polystyrene</td>
<td>DE 1.00</td>
<td></td>
</tr>
<tr>
<td>Matter volatile at 105°C</td>
<td>0.5%</td>
<td></td>
</tr>
<tr>
<td>Water soluble matter</td>
<td>1.20%</td>
<td></td>
</tr>
<tr>
<td>Sieve residue (45 μm)</td>
<td>0.10%</td>
<td></td>
</tr>
<tr>
<td>Free sulphur</td>
<td>0.07%</td>
<td></td>
</tr>
</tbody>
</table>

TYPICAL DATA
Specific gravity: 2.35
Tap density (g/cm³): 0.75
Oil absorption (%): 35.0
Mean particle size (μm): 4.00
Cube for shipping (m³): 1.50

FASTNESS PROPERTIES
Heat: Greater than 350°C
Light (xenon lamp and daylight):
Mass tone Excellent; 7 to 8 (BS1006 blue woolscale)
Reduced shade Excellent; 7 to 8 (BS1006 blue woolscale)
Acids: Poor
Alkalis: Good

HEALTH AND SAFETY
Ultramarine is one of the safest pigments available to industry.
Acute oral toxicity (LD 50 rats) - greater than 10g/kg
Skin irritation - non irritant, non sensitizing
Eye irritation - none
Ecology - non hazardous
Consult Material Safety Datasheet before use

STORAGE, STABILITY AND HANDLING
Shelf life - indefinite if stored under recommended conditions
Transport and storage - do not store near acids
Incompatible substances - acids
Hazardous decomposition products - hydrogen sulphide released by acid contact
Protective and special measures - none: avoid excessive dust
Action after spillage - clean quickly; avoids flushing large quantities. Dispose according to local regulations

REGULATIONS
Conforms to the following regulations or codes of practice:
Food Contact Plastics
EC - C.E. Resolution AP (89)1
Approved under the French positive list (Circulaire 176 du 22.12.1959)
U.S.A. - CFR 21, Part 178.3297
Cosmetics
EC - Directive 76/768/EEC and amendments
U.S.A. - CFR 21, Part 73.2725
Toys
U.S.A. - Federal Register 42 (170) 44193-44201 (1977)
Other Countries - To the best of our knowledge Ultramarine pigments are approved for food contact, cosmetics and toy use throughout the world – for more information see Holliday Pigments publication “Health and Safety”

The technical data or recommendations are given to the best of our knowledge but carry no guarantee or acceptance of responsibility. It is the duty of the user to assess the suitability of our products within their own formulation. Standard specifications, although current at the time of publication, are subject to change without notice.