MATERIAL SAFETY DATA SHEET

(Following the Regulation (EC)No453/2010

Ultramarine Blue

Version 4 Creation date:06.06.2013

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY UNDERTAKING

Registered name: ULTRAMARINE BLUE
Description: Pigment Blue 29
Supplier: Dongguan Hailerui Chemical Co., Ltd.
Head Office: No.2, Xicheng 1st Ind. Dis, Hengli Town, Dongguan City, Guangdong Province, China

Emergency Telephone: 0086-769-23102791
Emergency Fax Number: 0086-769-23102792

2. Composition/Information on ingredients

Component: Ultramarine Blue
Chemical Name: Sodium Alumino Sulphosilicate
CAS No.: 57455.37.5
%: 100
EINECS No.: 3.099.283
Color Index No.: Pigment Blue 29:77007

3. Hazard Identification

Physical/Chemical hazards: Contact with acids liberates hydrogen sulphide, a highly flammable toxic gas. This risk is greatly reduced with acid resistance grades.

Environmental hazards: None

Human health hazards: can create nuisance dust

4. First aid measures

Effects and Symptoms

Ingestion: None
Inhalation: None
Skin Contact: As with all powders may cause irritation to sensitive skin

First aid measures

Ingestion: non toxic: no action necessary
Inhalation: non toxic: no action necessary
Skin Contact: Wash off with soap and plenty of water. If skin irritation persists, seek medical advice.
Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. If problem persists seek medical advice.
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5.-Fire fighting measures

Flammability

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Water, foam, carbon dioxide (CO₂), dye powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not suitable</td>
<td>toxic, irritating Sulphur Dioxide (SO₂) gas an be generated if this product undergoes chemical change during a fire sustained by other combustible materials</td>
</tr>
</tbody>
</table>

Hazardous decomposition products

Special protective equipment for firefighters

suitable breathing apparatus should be worn.

6.-Accidental Release Measures

Personal precautions

No special precautions are requested except in case of fire or contact with acids or fire, in which case suitable breathing apparatus should be worn.

Environmental precautions

Do not flush into surface water or sanitary sewer systems.

Methods for cleaning up

Sweep up spillages. In case of accidental major discharges into drains, flush with copious amounts of water to dilute any acidic conditions which may prevail.

7.-Handling and storage

Storage/Handling

Store in a dry, well ventilated area.

Do not store in areas where there is a risk of fire.

Do not mix or store with acids.

Packaging Materials

Suitable

Paper, PE

Not suitable

PVC based materials

Shelf Life

24 Months

8.-Exposure controls/personal protection

National Occupational

No Specific OEL for Ultramarine, only for nuisance dusts.

Exposure limits

Chemical Name

Nuisance dusts.

OEL (United Kingdom)

10 mg m⁻³, 8 hr time weighted average for total inhalable dust.

4 mg m⁻³, 8 hr time weighted average for total respirable dust.

Respiratory Protection

Wear a suitable dust mask rated to EN149 FFP1.

In the event of contact with acids or fire use self-contained breathing apparatus.

Hand protection

This product is non-irritating, therefore protection is not essential.

However, it is recommended to use disposable nitrile or vinyl gloves when handling bulk quantities.
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9.-Physical and chemical properties
Form: Fine Blue Powder
Odour: None present
PH(10% suspension): 7-9
Decomposition Temp.: loss of sulphur at 400°C 750°F
Flammability: Not applicable. This product is not flammable and does not provide conditions favourable to combustion
Explosive Limits: Ultramarine dusts do not form explosive mixtures in air.
Specific Gravity: 2.35
Solubility: Insoluble in water and organic solvents

10.-Stability and reactivity
Stability: Stable in air up to 300°C/570°F
Condition to avoid: At temperatures above 400°C 750°F in the presence of air an exothermic reaction can occur with the liberation of Sulphur Dioxide(SO₂)gas
Contact with acids liberates Hydrogen Sulphide(H₂S)gas.
Decomposition Products: Hydrogen Sulphide-on contact with acids
Sulphur Dioxide-in combustion

11.-Toxicological information
Oral LD 50(rat): >10000mb/KG
Skin Irritation:
  a. short term(rabbit): None
  b. longterm(guinea pig) 6.25%conc: None
Mutagenicity: None
Teratogenicity: None

12.-Ecological information
Ultramarine pigments are synthetic equivalents of the mineral Lapis Lazuli. They are extremely stable, except under acidic conditions when they will decompose in siliceous material with the evolution of hydrogen sulphide (see section 3 and 10).
Ultramarine pigments pose no threat to the environment if disposed of responsibly as shown in 13 below.
In Germany, ultramarine blue is classified by KBwS (commission for Evaluation of Substances Hazardous to Waters) as non hazardous to waters.
Biodegradability: not applicable
Bio-accumulation: not applicable
13.-Disposal consideration
Methods of Disposal     In accordance with local and national regulations governing disposal of chemical waste.
Other Information     Ultramarine Pigments should not be washed into waste-water or drains.
                        Ultramarine pigments should not be disposed of where there is a risk of contact with acids

14.-Transport information
Do not transport with acid.
Ultramarines are not classified as dangerous substances for supply or transportation under international regulations.

15.-Regulatory information
Ultramarine Blue is not classified as dangerous.
All our packing carry the following advices:
                        Keep away from acids and oxidizing agents
                        Do not empty into drains.

16.-Other information
Although Ultramarine blue is non toxic, inhalation of dusts and powders should be avoided in the general interests of health and safety. Use dust extraction systems and wear a dust protection mask if necessary.

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