ONDULINE CORRUGATED BITUMEN SHEET

Version 2.0

This Material Safety Data Sheet is in conforms to Regulations (EC) No 1907/2006, (EC) No 1272/2008 and their amendments

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SAFETY DATA SHEET

SECTION 1: Identification of the substance / mixture and of the company / undertaking

1.1. Product Identifier

Product name: ONDULINE Sheet / Plaque ONDULINE

Chemical product name: No data available

Synonyms: No data available

Proper shipping name: None

Chemical formula: No data available

Other means of identification: No data available

Index number: No data available

ID number: No data available

CAS number: No data available

REACH registration number: No data available

EC number: Not Available

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Corrugated roofing sheets

Uses advised against: No data available

1.3. Details of the supplier of the safety data sheet

Registered company name: ONDULINE SA

Address: 35 rue Baudin - 92 300 Levallois Perret - France

Telephone: +33(0)1 55 63 80 10

Fax: +33(0)1 41 34 30 55

Email: info@onduline.com

1.4. Emergency telephone number

Emergency telephone numbers: 00442087628322
ORFILA (France) +33(0)1 45 42 59 59

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

DSD classification: Not applicable

DPD classification: None

CLP classification: None

2.2. Label elements

CLP label elements

Signal word:	None
Hazard statement(s):	None
Precautionary statement(s):	None

DSD / DPD label elements

Indication(s) of danger : Classified as non-dangerous preparation according to the directive 1999/45/CE.

Safety advice: None

2.3. Other hazards

None

PBT/vPvB criteria No data available

SECTION 3: Composition / information on ingredients

3.1. Substances

See 'Composition on ingredients' in section 3.2

3.2. Mixtures

1. CAS No 2. EC No 3. Index No 4. REACH No	%[weight]	Name	Classification according to Directive 1999/45/EC [DPD]	Classification according to (EC) No 1272/2008 [CLP]
1. 13463-67-7 2. 236-675-5, 215-280-1, 215-282-2 3. No data available 4. No data available	1-1.5	titanium dioxide Substance with occupational exposure limits		
1.1333-86-4 2.215-609-9 3. No data available 4. 4.No data available	0.52	carbon black Substance with occupational exposure limits		

SECTION 4: First aid measures

4.1. Description of first aid measures

General : No data available

Ingestion: Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Eye Contact : If this product comes in contact with eyes: Wash out immediately with water. If irritation continues, seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact : If skin or hair contact occurs:Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

Inhalation: If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.

4.2. Most important symptoms and effects, both acute and delayed

Inhaled: The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

Inhalation of vapour at relatively low concentrations may cause a tingling sensation in the nose and upper respiratory tract. Slightly higher concentrations may cause a burning sensation, headache.

Ingestion: Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health).

Skin Contact: The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Eye: Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

Chronic: Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.
On the basis, primarily, of animal experiments, concern has been expressed that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility: None known.

5.3. Advice for firefighters

Fire Fighting: Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves for fire only. Prevent, by any means available, spillage from entering drains or water courses. Use firefighting procedures suitable for surrounding area.

Fire/Explosion Hazard: Noncombustible. Not considered a significant fire risk, however containers may burn.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Protective Equipment: Breathing apparatus.

Minor Spills: Clean up all spills immediately. Avoid contact with skin and eyes. Wear impervious gloves and safety glasses. Use dry clean up procedures and avoid generating dust.

Major Spills: Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact by using protective equipment and dust respirator. Prevent spillage from entering drains, sewers or water courses.

6.2. Environmental precautions

Not applicable

6.3. Methods and material for containment and cleaning up

Not applicable

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the MSDS

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safe handling Limit all unnecessary personal contact. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with incompatible materials.

Fire and explosion protection See section 5

Other information Store in original containers. Keep containers securely sealed. Store in a cool, dry area protected from environmental extremes. Store away from incompatible materials and foodstuff containers.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container: Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer.

Storage incompatibility: Avoid contamination of water, foodstuffs, feed or seed.

Package Material Incompatibilities: No data available

7.3. Specific end use(s)

See section 1.2

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Occupational Exposure Limits (OEL)

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	TWA F/CC	Notes
UK Workplace Exposure Limits (WELs)	titanium dioxide (Titanium dioxide respirable)		4						
UK Workplace Exposure Limits (WELs)	titanium dioxide (Titanium dioxide total inhalable)		10						
UK Workplace Exposure Limits (WELs)	carbon black (Carbon black)		3.5		7				

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

8.2.2. Personal protection

Eye and face protection: Safety glasses with side shields Chemical goggles. Contact lenses may pose a special hazard;soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59],
[AS/NZS 1336 or national equivalent]

Skin protection:	See Hand protection: below
Hand protection:	Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: frequency and duration of contact, chemical resistance of glove material, glove thickness and dexterity Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.polychloroprene nitrile rubber butyl rubber fluorocaoutchouc
Body protection :	See Other protection: below
Other protection:	No special equipment needed when handling small quantities. **OTHERWISE:** Overalls. Barrier cream. Eyewash unit.
Respiratory protection :	Type BAX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)
Thermal hazards:	No data available
Recommended material(s) :	Not applicable

8.2.3. Environmental exposure controls

See section 12

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Solid, all colors without silver
Odour	No data available
Odour threshold	No data available
pH (1% solution)	No data available
pH (as supplied)	No data available
Melting point / freezing point (°C)	No data available
Initial boiling point and boiling range (°C)	No data available
Flash point (°C)	No data available
Evaporation rate	No data available

Flammability	No data available
Vapour pressure (kPa)	No data available
Vapour density (Air = 1)	No data available
Relative density (Water = 1)	No data available
Solubility in Water (g/L)	Immiscible
Partition coefficient: n-octanol / water	No data available
Auto-ignition temperature (°C)	No data available
Critical temperature (°C)	No data available
Viscosity (cSt)	No data available
Explosive properties	No data available
Oxidising properties	No data available
Upper Explosive Limit (%)	No data available
Lower Explosive Limit (%)	No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity	See section 7.2
10.2. Chemical stability	Product is considered stable and hazardous polymerization will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Mutagenicity:	No data available
Reproductive Toxicity :	No data available
Carcinogenicity:	No data available
STOT – single exposure:	No data available

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances. ONDULINE Sheet / Plaque ONDULINE: None assigned. Refer to individual constituents. **TITANIUM DIOXIDE:**

TOXICITY	IRRITATION
Oral (Rat) LD50: >20000 mg/kg *	Skin (human): 0.3 mg /3D (int)-Mild *
Oral (Mouse) LD50: >10000 mg/kg *	

The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.For titanium dioxide:Humans can be exposed to titanium dioxide via inhalation, ingestion or dermal contact. In human lungs, the clearance kinetics of titanium dioxide is poorly characterized relative to that in experimental animals.* IUCLID
CARBON BLACK:Dermal (rabbit) LD50: >3000 mg/kg WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

CARCINOGEN

Titanium dioxide	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B
Carbon black	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B

SECTION 12: Ecological information

12.1. Toxicity

Fish: No data available

Daphnia Magna: No data available

Algae: No data available

Toxic to aquatic micro-organisms: No data available

CARBON BLACK: TITANIUM DIOXIDE:
DO NOT discharge into sewer or waterways.
TITANIUM DIOXIDE:
Metal-containing inorganic substances generally have negligible vapour pressure and are not expected to partition to air. Once released to surface waters and moist soils their fate depends on solubility and dissociation in water.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Plaque ONDULINE	No Data Available	No Data Available
titanium dioxide	HIGH	No Data Available
carbon black	No Data Available	No Data Available

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
titanium dioxide	LOW

12.4. Mobility in soil

Ingredient	Mobility
titanium dioxide	HIGH (ESTIMATED)

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	No data available	No data available	No data available
PBT and vPvB Criteria fulfilled?	No data available	No data available	No data available

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product / Packaging

disposal: Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill

Waste treatment options: According to local regulation

Sewage disposal options: No relevant data

Other disposal Recommendations : No data available

SECTION 14: Transport information

Labels Required: None

Land transport (ADR / RID / GGVSE)

14.1. UN number	No	**14.4. Packing group**	No
14.2. UN proper shipping name	No	**14.5. Environmental hazard**	No
14.3. Transport hazard class(es)	No	**14.6. Special precautions for user**	Hazard identification (Kemler): No Classification Code: No Hazard Label: No Special provisions: No Add limited quantity: No

Air transport (ICAO-IATA / DGR)			
14.1. UN number	No	**14.4. Packing group**	No
14.2. UN proper shipping name	No	**14.5. Environmental hazard**	No
14.3. Transport hazard class(es)	ICAO/IATA Class: No ICAO/IATA Subrisk: No ERG Code No	**14.6. Special precautions for user**	Special provisions No Cargo Only Packing Instructions No Cargo Only Maximum Qty / Pack No Passenger and Cargo Packing Instructions No Passenger and Cargo Maximum Qty / Pack No Passenger and Cargo Limited Quantity Packing Instructions No Passenger and Cargo Maximum Qty / Pack No

Sea transport (IMDG-Code / GGVSee)			
14.1. UN number	No	**14.4. Packing group**	No
14.2. UN proper shipping name	No	**14.5. Environmental hazard**	No
14.3. Transport hazard class(es)	No **IMDG** No **Subrisk**	**14.6. Special precautions for user**	EMS Number No Special provisions No Limited Quantities No

Inland waterways transport (ADNR / River Rhine)			
14.1. UN number	No	**14.4. Packing group**	No
14.2. UN proper shipping name	No	**14.5. Environmental hazard**	No

14.3. Transport hazard class(es)	**ADNR** No **Label** No	**14.6. Special precautions for user**	Classification code: No Limited quantity: No Equipment required: No Fire cones number: No

14.7. Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

Regulations for ingredients

titanium dioxide (CAS: 13463-67-7,1317-70-0,1317-80-2,12188-41-9,1309-63-3,100292-32-8,101239-53-6,116788-853,12000-59-8,12701-76-7,12767-65-6,12789-63-8,1344-29-2,185323-71-1,185828-91-5,188357-76-8,188357-791,195740-11-5,221548-98-7,224963-00-2,246178-32-5,252962-41-7,37230-92-5,37230-94-7,37230-95-8,37230-969,39320-58-6,39360-64-0,39379-02-7,416845-43-7,494848-07-6,494848-23-6,494851-77-3,494851-98-8,55068-843,55068-85-4,552316-51-5,62338-64-1,767341-00-4,97929-50-5,98084-96-9) is found on the following regulatory lists;

"CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP","EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products","EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products (Danish)","EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products (German)","EU Cosmetic Directive 76/768/EEC Annex VI Part 1 List of Preservatives Allowed (German)","EU Cosmetic Directive 76/768/EEC Annex VII Part 1 List of permitted UV filters which cosmetic products may contain","EU Cosmetic Directive 76/768/EEC Annex VII Part 1 List of permitted UV filters which cosmetic products may contain (German)","EU Directive 2002/72/EC Plastic materials and articles intended to come into contact with foodstuffs - Annex III Section A Incomplete list of additives fully harmonised at Community level","European Chemicals Agency (ECHA) List of substances identified for registration in 2010","European Customs Inventory of Chemical Substances (English)","European Trade Union Confederation (ETUC) Priority List for REACH Authorisation","European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)","European Union (EU) Inventory of Ingredients used in Cosmetic Products","GESAMP/EHS Composite List - GESAMP Hazard Profiles","IMO IBC Code Chapter 17: Summary of minimum requirements","International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs","International Fragrance Association (IFRA) Survey: Transparency List","UK Workplace Exposure Limits (WELs)"

carbon black (CAS: 1333-86-4) is found on the following regulatory lists;

"EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products","EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products (Danish)","EU Cosmetic Directive 76/768/EEC Annex IV Part 1: List of Colouring Agents Allowed for Use in Cosmetic Products (German)","European Chemicals Agency (ECHA) List of substances identified for registration in 2010","European Customs Inventory of Chemical Substances (English)","European List of Notified Chemical Substances (ELINCS)","European Trade Union Confederation (ETUC) Priority List for REACH Authorisation","European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)","European Union (EU) Inventory of Ingredients used in Cosmetic Products","International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs","International Council of Chemical Associations (ICCA) - High Production Volume List","UK Workplace Exposure Limits (WELs)"

No data for ONDULINE Sheet / Plaque ONDULINE

This safety data sheet is in compliance with the following EU legislation and its adaptations – as far as applicable - : 67/548/EEC, 1999/45/EC, 98/24/EC, 92/85/EEC, 94/33/EC, 91/689/EEC, 1999/13/EC, Regulation (EU) No 453/2010,

Regulation (EC) No 1907/2006, Regulation (EC) No 1272/2008, and their amendments as well as the following British legislation:

- The Control of Substances Hazardous to Health Regulations (COSHH) 2002

- COSHH Essentials

- The Management of Health and Safety at Work Regulations 1999

15.2. Chemical safety assessment

ANNEX 1

No data available

SECTION 16: Other information

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
titanium dioxide	13463-67-7, 1317-70-0, 1317-80-2, 12188-41-9, 1309-63-3, 100292-32-8, 101239-53-6, 116788-85-3, 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1344-29-2, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1, 195740-11-5, 221548-98-7, 224963-00-2, 246178-32-5, 252962-41-7, 37230-92-5, 3723094-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7, 416845-43-7, 494848-07-6, 49484823-6, 494851-77-3, 494851-98-8, 55068-84-3, 55068-85-4, 552316-51-5, 62338-64-1, 767341-00-4, 97929-50-5, 98084-96-9

OTHER

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:
EN 16 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and micro-organisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices This
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