1. PRODUCT AND COMPANY IDENTIFICATION

Product name: CasaDeck
Other names: wood-plastic composites
Description: composite decking boards
Appearance: Multi-colour solid

Supplier:
Outdure International Ltd.
1501, Prosperity Tower, 39 Queen's Road
Central, Hong Kong
Telephone: +85230184830

This Material Safety Data Sheet (MSDS) is issued by the Producer in accordance with the Code and guidelines from Safe Work Australia (SWA, formerly the Australian Safety and Compensation Council - ASCC, formerly National Occupational Health and Safety Commission - NOHSC). The information in it must not be altered, deleted or added to. The Producer will not accept any responsibility for any changes made to its MSDS by any other person or organization. The Producer will issue a new MSDS when there is a change in product specifications and/or SWA standards, guidelines, or regulations.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Proportion	CAS Number	EC Number
Polyethylene	30-35%	9002-88-4	618-339-3
Talc	10-15%	14807-96-6	238-877-9
Iron Oxide Yellow	<3%	51274-00-1	257-098-5
Pigment White	<3%	13463-67-7	236-675-5
Pigment Black	<3%	1333-86-4	215-609-9
Polypropylene	<3%	9003-07-0	607-534-9 / 618-352-4
Iron Oxide Red	<3%	1309-37-1	215-168-2

3. HAZARD IDENTIFICATION

Statement of hazardous nature: product not considered a dangerous mixture according to directive 1999/45/EC, Reg. (EC) No 1272/2008 (if applicable) and their amendments. Not classified as Dangerous Goods for transport purposes.
Hazard: Not applicable

4. FIRST AID MEASURES

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 and hair: Flush skin and hair with running water and soap available. Seek medical attention in event of irritation.

- **In case of burns:** Immediately apply cold water to burn either by immersion or wrapping with saturated clean cloth. Do not remove or cut away clothing over burnt areas. Do not pull away clothing which has adhered to the skin as this can cause further injury. Do not break blister or remove solidified material. Quickly cover wound with dressing or clean cloth to help prevent infection and to ease pain. For large burns, sheets, towels or pillow slips are ideal; leave holes for eyes, nose and mouth. Do not apply ointments, oils, butter, etc. to a burn under any circumstances. Water may be given in small quantities if the person is conscious. Alcohol is not to be given under any circumstances. Reassure. Treat for shock by keeping the person warm and in a lying position. Seek medical aid and advise medical personnel in advance of the cause and extent of the injury and the estimated time of arrival of the patient.
- **For thermal burns:** Decontaminate area around burn. Consider the use of cold packs and topical antibiotics.

- **First-degree burns (affecting top layer of skin):** Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides. Use compresses if running water is not available. Cover with sterile non-adhesive bandage or clean cloth. Give over-the counter pain relievers if pain increases or swelling, redness, fever occurs.
- **Second-degree burns (affecting top two layers of skin):** Cool the burn by immerse in cold running water for 10-15 minutes. Use compresses if running water is not available. Do not apply ice as this may lower body temperature and cause further damage. Protect burn by cover loosely with sterile, non stick bandage and secure in place with gauze or tape.
- **Third-degree burns:** Seek immediate medical or emergency assistance. In the meantime:
    - Protect burn area cover loosely with sterile, non stick bandage or, for large areas, a sheet or other material that will not leave lint in wound.
    - Separate burned toes and fingers with dry, sterile dressings.
    - Do not soak burn in water or apply ointments or butter; this may cause infection.
    - For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway.
    - Have a person with a facial burn sit up.
    - Check pulse and breathing to monitor for shock until emergency help arrives.

Ingestion: Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
Inhaled: If fumes, aerosols or combustion products are inhaled, remove from contaminated area. Other measures are usually unnecessary.

5. FIREFIGHTING MEASURES

Fire and explosion hazards: Avoid contamination with oxidising agents, i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine, etc. as ignition may result.
Extinguishing media: In a fire situation do not direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire. Use foam, dry chemical powder or BCF (where regulations permit).
Fire Fighting procedure:

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use water delivered as a fine spray to control fire and cool adjacent area.

Special protective equipment: For fires in enclosed areas, firefighters must use self-contained breathing apparatus.
Special protective precautions and equipment for firefighters: Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.

6. ACCIDENTAL RELEASE MEASURES

Methods and material for containment and cleaning up:

- **Minor spills:** Clean up all spills immediately. Avoid breathing dust and contact with skin and eyes. Wear protective clothing, gloves, safety glasses and dust respirator. Use dry clean up procedures and avoid generating dust.
- **Major spills:** Moderate hazard. Caution: Advise personnel in area. Alert Emergency Services and tell them location and nature of hazard. Control personal contact by wearing protective clothing.

7. HANDLING AND STORAGE

Handling: The greatest potential for injury caused by molten materials occurs during purging of machinery (moulders, extruders etc.). It is essential that workers in the immediate area of the machinery wear eye and skin protection (such as full face, safety glasses, heat resistant gloves, overalls and safety boots) as protection from thermal burns. Avoid contact of that material with the skin.

Storage: Store in suitable container (Polyethylene or polypropylene container). Wood/PE/PP/PET/steel and iron materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Ingredient data

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs)	Talc	Talc, respirable dust	1 mg/m3	Not available	Not available	Not available
UK Workplace Exposure Limits (WELs)	Iron Oxide Yellow	Iron salts (as Fe)	1 mg/m3	2 mg/m3	Not available	Not available
UK Workplace Exposure Limits (WELs)	Iron Oxide Yellow	Iron oxide, fume (as Fe)	5 mg/m3	10 mg/m3	Not available	Not available
UK Workplace Exposure Limits (WELs)	Pigment white	Titanium dioxide total inhalable / Titanium dioxide respirable	10 mg/m3 / 4 mg/m3	Not available	Not available	Not available
UK Workplace Exposure Limits (WELs)	Pigment black	Carbon black	3.5 mg/m3 4 mg/m3	7 mg/m3	Not available	Not available
UK Workplace Exposure Limits (WELs)	Iron Oxide Red	Rouge total inhalable / Rouge respirable	10 mg/m3 / 4 mg/m3	Not available	Not available	Not available

Emergency limits

Ingredient	Original IDLH	Revised IDLH
Polyethylene	Not available	Not available
Talc	N.E. mg / m3 / N.E. ppm	1,000 mg/m3
Iron Oxide Yellow	Not available	Not available
Pigment white	N.E. mg / m3 / N.E. ppm	5,000 mg/m3
Pigment black	N.E. mg / m3 / N.E. ppm	1,750 mg/m3
Polypropylene	Not available	Not available
Iron Oxide Red	N.E. mg / m3 / N.E. ppm	2,500 mg/m3

8.2. Exposure controls

8.2.1. For molten materials
Provide mechanical ventilation; in general such ventilation should be provided at compounding/converting areas and at fabricating/filling work stations where the material is heated. Local exhaust ventilation should be used over and in the vicinity of machinery involved in handling the molten material. Keep dry. Processing temperatures may be well above boiling point of water, so wet or damp material may cause a serious steam explosion if used in unvented equipment. Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.

8.2.2. Personal protection

Eye and face protection: Safety glasses with side shields, chemical goggles, eye and face protection, contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses 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.
Skin protection: See hand protection below.
Hands/feet protection: The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be

calculated in advance and has therefore to be checked prior to the application. The exact breakthrough time for substances has to be obtained from the manufacturer of the protective gloves and.has to be observed when making a final choice. Suitability and durability of glove type is dependent on usage.
Body protection: See Other protection below.
Other protection: Overalls, PVC apron, barrier cream.
Thermal hazards: Not available

Respiratory protection: Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required minimum protection factor	Half-face respirator	Full-face respirator	Powered air respirator
Up to 10 x ES	A P1 Air-line*	-	A PAPR-P1
Up to 10 x ES	Air-line**	A P2	A PAPR-P2
Up to 10 x ES	-	A P3	-
		Air-line*	-
Up to 10 x ES	-	Air-line**	A PAPR-P3

* - Negative pressure demand ** - Continuous flow *
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 =Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfurdioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO =Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds (below 65 degC)

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid
Colour: Multi-colour
Odor: Not available
PH Value at stated concentration: Not available
Vapour pressure: Not determined
Vapour density: Not determined
Boiling point/range: Not available
Freezing/Melting point: Not available
Solubility in water: Not available
Solubility (other): Not applicable
Specific gravity: Not available
Evaporation rate: Not applicable
Flash point: 240°C

10. STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable. Unstable in the presence of incompatible materials. Hazardous polymerisation will not occur.

11. TOXICOLOGICAL DATA

Information on toxicological effects

Eye: Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.
Skin: 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. Molten material is capable of causing burns. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the bloodstream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects.
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 hazard is increased at higher temperatures.
Ingestion: The material has not been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence. 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).
Chronic: On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body 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.

Toxicity Data:

Ingredient	Toxicity	Irritation
Wood-plastic composites	Not available	Not available
Polyethylene	Inhalation (mouse) LC50: 12000 mg/m3/30m Oral (rat) LD50: >3000 mg/kg Classified by IARC as Group 3: Not classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.	
Talc	Not available	Not available
Iron Oxide Yellow	Not available	Not available
Pigment White	Not available	Not available
Pigment Black	Not available	Not available
Polypropylene	Oral (mouse) LD50: >3200 mg/kg	Not available
Iron Oxide Red	Not available	Not available

12. ECOLOGICAL INFORMATION

Do not discharge into sewer or waterways.

13. DISPOSAL CONSIDERATION

Product / Packaging disposal: Do not allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority.
Marine Pollutant: No

14. TRANSPORT INFORMATION

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

Source	Ingredient	Pollution category
IMO MARPOL 73/78 - List of Noxious Liquid Substances Carried in Bulk	Pigment white	Z

15. REGULATORY INFORMATION

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/EC, 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.

ECHA Summary

Ingredient	**CAS number**	**Index No**	**ECHA Dossier**
Polyethylene	9002-88-4	Not available	Not available
Harmonisation (C&L Inventory)	**Hazard Class and Category Code(s)**	**Pictograms Signal Word Code(s)**	**Hazard Statement Code(s)**
1	Not classified	Not available	H412
2	Aquatic Chronic 3	Not available	H412
Harmonisation Code 1 = The most severe classification. Harmonisation Code = 2 The most prevalent classification			
Ingredient	**CAS number**	**Index No**	**ECHA Dossier**
Talc	14807-96-6	Not available	Not available
Harmonisation (C&L Inventory)	**Hazard Class and Category Code(s)**	**Pictograms Signal Word Code(s)**	**Hazard Statement Code(s)**
1	Not classified	Wng, GHS08, Dgr	H332, H319, H372, H350, H335, H413
2	Acute Tox. 4, Eye Irrit. 2, STOT RE 1, Carc. 1A, STOT SE 3, Aquatic Chronic 4	Wng, GHS08, Dgr	H332, H319, H372, H350, H335, H413
Harmonisation Code 1 = The most severe classification. Harmonisation Code = 2 The most prevalent classification			
Ingredient	**CAS number**	**Index No**	**ECHA Dossier**
Iron Oxide Yellow	51274-00-1	Not available	01-2119457554-33-XXXX
Harmonisation (C&L Inventory)	**Hazard Class and Category Code(s)**	**Pictograms Signal Word Code(s)**	**Hazard Statement Code(s)**
1	Not classified	GHS05, GHS08, Dgr, Wng	H315, H318, H335, H372
2	Skin. Irrit. 2, Eye Dam. 1, STOT SE 3, STOT RE 1	GHS05, GHS08, Dgr, Wng	H315, H318, H335, H372
Harmonisation Code 1 = The most severe classification. Harmonisation Code = 2 The most prevalent classification			
Ingredient	**CAS number**	**Index No**	**ECHA Dossier**
Pigment white	13463-67-7	Not available	01-2119489379-17-XXXX
Harmonisation (C&L Inventory)	**Hazard Class and Category Code(s)**	**Pictograms Signal Word Code(s)**	**Hazard Statement Code(s)**
1	Not classified	GHS08, Wng, Dgr, GHS06	H332, H335, H372,H315, H350, H412, H318, H302, H312
2	Acute Tox. 4, Eye Irrit. 2, STOT RE 1, Skin Irrit. 2, STOT SE 2, Carc. 1B, Aquatic Chronic 4	GHS08, Wng, Dgr, GHS06	H332, H335, H372,H315, H350, H412, H318, H302, H312
Harmonisation Code 1 = The most severe classification. Harmonisation Code = 2 The most prevalent classification			

Ingredient	CAS number	Index No	ECHA Dossier
Pigment black	1333-86-4	Not available	Not available
Harmonisation (C&L Inventory)	**Hazard Class and Category Code(s)**	**Pictograms Signal Word Code(s)**	**Hazard Statement Code(s)**
1	Not classified	GHS08, Wng, Dgr, GHS06, GHS02, GHS09	H351, H372, H319, H251, H251, H228, H315, H370, H410, H332
2	Card. 2, STOT RE 1, Eye Irrit. 2, Self-heat. 1, Skin Irrit. 2, STOT SE 1, Aquatic Chronic 1, Acute Tox. 4, Flam. Sol. 2	GHS08, Wng, Dgr, GHS06, GHS02, GHS09	H351, H372, H319, H251, H251, H228, H315, H370, H410, H332
Harmonisation Code 1 = The most severe classification. Harmonisation Code = 2 The most prevalent classification			
Ingredient	**CAS number**	**Index No**	**ECHA Dossier**
Polypropylene	9003-07-0	Not available	Not available
Harmonisation (C&L Inventory)	**Hazard Class and Category Code(s)**	**Pictograms Signal Word Code(s)**	**Hazard Statement Code(s)**
1	Not classified	GHS02, Wng	H228
2	Flam. Sol. 2	GHS02, Wng	H228
Harmonisation Code 1 = The most severe classification. Harmonisation Code = 2 The most prevalent classification			
Ingredient	**CAS number**	**Index No**	**ECHA Dossier**
Iron Oxide Red	1309-37-1	Not available	01-2119457614-35-XXXX
Harmonisation (C&L Inventory)	**Hazard Class and Category Code(s)**	**Pictograms Signal Word Code(s)**	**Hazard Statement Code(s)**
1	Not classified	Wng, GHS09, GHS08, Dgr, GHS05	H411, H315, H370, H318, H372, H332, H302
2	Eye Irrit. 2, Aquatic Chronic 2, Skin Irrit. 2, STOT SE 3, Eye Dam. 1, STOT RE 1, Acute Tox. 4	Wng, GHS09, GHS08, Dgr, GHS05	H411, H315, H370, H318, H372, H332, H302
Harmonisation Code 1 = The most severe classification. Harmonisation Code = 2 The most prevalent classification			

15. OTHER INFORMATION

Full text risk and hazard codes

Code	Description
H228	Flammable solid
H251	Self-heating; may catch fire
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage

H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life
R20 R37	R20 R37

Other information
The MSDS 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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:
EN 166 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and microorganisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices

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