

Safety Data Sheet

According to regulation (EC) 1907/2006

DuraSense®

Version: 2020:2

Revised: November 26th, 2020

Date of issue: 29 Mars, 2015

1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name: DuraSense®

Other means of identification (alternative names, numbers, company product codes, or other unique identifiers):

Alternative names: Biocomposite granules, Stora Enso biocomposite material

CAS number: -

EC number: -

REACH registration number: See section 15.

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

Identified use(s):

Injection moulding

Extrusion

3D-printing

Thermoforming

1.3. Details of the supplier of the safety data sheet

Address: Stora Enso AB, Hylte Mill, Gamla Nissastigen 16, 314 81 Hyltebruk, Sweden

Telephone: +46 10 461 90 00

E-mail: durasense.quality@storaenso.com

1.4. Emergency telephone number

Telephone: +46 70-607 91 34

2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

According to 67/548/EC

Not classified as dangerous

According to 1272/2008/EC

Not classified as dangerous

HEALTH

The material may form dust which can cause mild eye and skin irritation. Exposure to dust may also be irritating in the upper respiratory system. DuraSense® may aggravate pre-existing respiratory conditions or allergies.

Improper processing of the material may cause burning of the material which can form toxic gases.

ENVIRONMENT

The material has not been tested for environmental effects.

FIRE

May ignite at high temperature, or after exposure to open fire. Hazardous vapours can be released in case of improper burning of the material.



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3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substance

This product consists primarily of wood fibers and high molecular weight polymers which are not expected to be hazardous. The ingredients in this product are present within the polymer matrix and are not expected to be hazardous.

4 FIRST AID MEASURES

4.1. Description of first aid measures in case of symptoms

Inhalation

Move the exposed person to fresh air. Have the person blow his/her nose. Seek medical advice if irritation persists or if severe coughing or breathing difficulty occurs.

Skin contact

If irritation develops, wash skin with soap and flush thoroughly with plenty of water. If any symptoms would persist, seek medical attention.

Contact with eyes

First check the exposed person for contact lenses and remove if present. Immediately flush eyes with plenty of water while holding eyelids open. Use tempered water. If symptoms such as redness or irritation develop or persist, get immediate medical attention. Do not put any medication in the person's eyes unless instructed by a physician.

Ingestion

Seek medical attention if irritation or other symptoms appear.

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

Inhalation

Inhalation of dust or decomposition vapours may cause irritation of the upper respiratory tract.

Skin contact

DuraSense® is not expected to cause skin irritation or to be sensitizing to skin.

Contact with eyes

DuraSense® granules are not expected to cause eye irritation.

Ingestion

DuraSense® is considered to be non-toxic by ingestion; however, ingestion of large quantities may cause gastrointestinal tract irritation, nausea, and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

As a general rule, in all cases of doubt or when symptoms persist, always seek medical attention.



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5 FIRE-FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Suitable extinguishing media

Use extinguishing media appropriate to the surrounding fire conditions.
Use as appropriate: Water spray, foam, carbon dioxide.

5.1.2. Unsuitable extinguishing media

No specific recommendations.

5.2. Special hazards arising from the substance or mixture

May ignite at high temperature, or after exposure to open fire. Reject from the injection moulding or extrusion process may smolder and ignite if high shear forces or temperatures are exercised within the process.
Burning may produce toxic gases such as carbon monoxide, carbon dioxide and aldehydes.

5.3. Advice for fire-fighters

Protective equipment: Wear suitable respiratory equipment when necessary.

6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation of the working area. Wear suitable protective equipment (see section 8). Loose granules may increase the risk of slipping; extra attention to safe footing is advised.

6.2. Environmental precautions

Isolate and sweep up spilled material. Prevent leakage of any clean-up water into surface water.

6.3. Methods and material for containment and cleaning up

Scoop up in an organized fashion and transfer to suitable, labelled containers for disposal.

7 HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1 Protective measures

Ensure adequate ventilation of the working area. (See section 7.2).

Keep away from heat.

Keep away from sources of ignition.

Avoid dust formation.

7.1.2 Advice on general occupational hygiene

Handle in accordance with good industrial hygiene and safety practice. Use adequate personal protective equipment as required (see section 8.2).



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7.2. Conditions for safe storage, including any incompatibilities

Store in well-ventilated dry areas out of direct sunlight. Maintain good housekeeping to avoid dust build up.

7.3. Specific end use(s)

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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limit value

See to that the national Occupational Exposure Limit value for paper and polymer dust not is exceeded. (Occupational Exposure Limit values are set by competent national authorities and may differ in different countries.)

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate risk management measures include local exhaust ventilation, the setting of standard protocols for proper venting of the container before entrance, documented safe working procedure/restricted working areas.

8.2.2. Individual protection measures, such as personal protective equipment

a) Eye/face protection

If the product is used in such a way that high dust levels is generated: Use protective eye gear.

b) Skin protection

Not normally required. When handling material for prolonged periods or to prevent mechanical irritation protect hands, wrists and forearms.

c) Respiratory protection

If the product is used in such a way that high dust levels is generated: Use an approved dust protection mask.

8.2.3 Environmental exposure controls

See section 12.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Granulates
Colour	Light to dark brown
Odour	Smells lightly of wood
pH	Not determined
Flashpoint (PMCC):	Not determined
Ignition temperature:	Not determined
Melting point:	Above 140°C
Density:	950-1150 kg/m ³
Bulk density:	450-700 kg/m ³
Solubility in H ₂ O:	Insoluble



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9.2. Other information

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10 STABILITY AND REACTIVITY

10.1. Reactivity

The substance is not reactive under recommended storage and handling conditions (see section 7).

10.2. Chemical stability

The substance is stable under recommended storage and handling conditions (see section 7).

10.3. Possibility of hazardous reactions

No specific hazardous reactions are expected to occur.

10.4. Conditions to avoid

See section 7.

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

See section 5.2.

11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

(a) Acute toxicity

No data, not expected to be acutely toxic

(b) Skin corrosion/irritation

No data, not expected to be irritant

(c) Serious eye damage/irritation

No data, not expected to be irritant

(d) Respiratory or skin sensitization

No data, not expected to be sensitising

(e) Germ cell mutagenicity

No data available

(f) Carcinogenicity

Not expected to be carcinogenic



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(g) Reproductive toxicity

No data available

(h) STOT-single exposure

No data available

(i) STOT-repeated exposure

No data available

(j) Aspiration hazard

No data available

12 ECOLOGICAL INFORMATION

Avoid contaminating waterways. DuraSense® is expected to have a minimal ecotoxicity; the material is partially biodegradable due to the high content of wood fibres.

12.1. Toxicity

-

12.2. Persistence and degradability

-

12.3. Bioaccumulative potential

-

12.4. Mobility in soil

-

12.5. Results of PBT and vPvB assessment

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12.6. Other adverse effects

No other adverse effects are observed

13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1 Product / Packaging disposal

Product residues should be disposed of or recycled according to relevant national and local regulations. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).

13.1.2 Waste treatment options

Examine possibilities for reutilization or recycling.



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14 TRANSPORT INFORMATION

Not classified as dangerous goods under relevant international transport regulations (*ADR, RID, IATA, IMDG*).

14.1. UN number: Not applicable

14.2. UN proper shipping name: Not applicable

14.3. Transport hazard class(es): Not applicable

14.4. Packing group: Not applicable

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user: Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15 REGULATORY INFORMATION

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

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15.2. Chemical Safety Assessment

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16 OTHER INFORMATION

Key literature references and sources for data:

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