

MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision number: 2

Revision date: 25/10/2017

1. Identification of the substance/mixture and of the company/undertaking**1.1. Product Details**

Product Code : M125
Full Name : Poly(3,4-ethylenedioxythiophene)-poly(styrenesulfonate) (HTL Solar 3)
REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.
CAS No. : 155090-83-8

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

Identified uses : Laboratory chemicals

1.3. Supplier details

Supplied by : Ossila Limited
Kroto Innovation Centre
Broad Lane, Sheffield
S3 7HQ, UK
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2. Hazards identification**2.1. Classification of the substance or mixture****Hazard statements according to Regulation (EC) 1272/2008**

Flammable liquids (Category 2), H225
Aspiration hazard (Category 1), H304
Skin irritation (Category 2), H315
Eye irritation (Category 2), H319
Reproductive toxicity (Category 2), H361d
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336
Specific target organ toxicity - repeated exposure (Category 2), H373

2.2. Label elements**Labelling according Regulation (EC) No 1272/2008 [CLP]**

Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370 + P378	In case of fire: Use dry powder or dry sand to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.

2.3. Other hazards

None.

3. Composition/Information on ingredients

3.2. Mixtures

Synonyms: : Clevios HTL Solar 3, PEDOT

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	CAS #	Weight %	CLP Classification
Poly(3,4-ethylenedioxythiophene)-poly(styrenesulfonate)	155090-83-8	1.5 – 2.5	Skin Irrit. 2 (H315), Eye Irrit. 2 (H319)
Toluene	108-88-3	> 97	Flam. Liq. 2 (H225), Skin Irrit. 2 (H315), Asp. Tox. 1 (H304), Repr. Tox.(H361d), STOT SE 3 (H336), STOT RE (H373)

4. First aid measures

4.1. Description of first aid measures

After Inhalation

Remove person to fresh air. If not breathing, give person artificial respiration.

After skin contact

Wash with soap and water.

After eye contact

Flush with copious amounts of water as a precaution.

After Ingestion

Rinse out mouth with water.

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

The most important known symptoms and effects are described in section 11.

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

No data available.

5. Fire fighting

5.1. Extinguishing media

Suitable extinguishing media: Dry chemical, alcohol-resistant foam, carbon dioxide or water spray. Consult with local fire authorities before attempting large scale fire-fighting operations.

5.2. Special hazards arising from the substance of mixture

Hazardous combustion products: Carbon oxides, sulfur oxides.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus if necessary. During a fire, irritating and highly toxic gases and vapours may be generated by thermal decomposition.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment (section 8). Avoid dust formation. Ensure room is well ventilated.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Containment and cleaning

Contain and clean up spill if safe to do so using an electrically protected vacuum cleaner or by wet-brushing. Dispose of dry waste in closed container for proper disposal according to local regulations.

7. Handling and storage

7.1. Precautions for safe handling

Avoid formation of mist and vapour. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition and avoid the build up of electrostatic charge. Provide exhaust ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry and well-ventilated place inside of a tightly sealed container. Reseal containers that have been opened to prevent evaporation of solvent and potential formation of a non re-dispersible solid. Keep upright to prevent leakage.

Quality-related information: Recommended storage temperature 5 – 10 °C. Product can not be used if it has been frozen. Reseal containers well that have been opened to prevent evaporation of water and potential formation of a non-redispersible solid.

7.3. Specific end uses

Use in laboratories.

8. Exposure controls / Personal protection

8.1. Control parameters

Exposure limit sources

UK – EH40 Workplace Exposure Limits (WEL).

Components with workplace control parameters

Component	CAS #	Control parameters
Toluene	108-88-3	50 ppm (TWA) 191 mg/m ³ (TWA) 100 ppm (STEL) 384 mg/m ³ (STEL)

TWA - time weighted average; STEL - Short Term Exposure Limit

Biological occupational exposure limits

This product does not contain any hazardous materials with biological limits.

8.2. Exposure controls

Engineering measures

Handle in accordance with good industrial engineering/laboratory practices for hygiene and safety. Ensure eyewash stations and safety showers are close to the laboratory workstation. Ensure good general ventilation is present when handling the product.

Personal protective equipment

Eyes: Wear safety glasses with side-shields conforming to appropriate government standards such as NOISH (US) or EN166 (EU).

Skin: Handle with appropriate gloves and use proper glove removal technique to avoid skin contact. Dispose of gloves in accordance with applicable laws. Wash and dry hands.

The selected protective gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: PVA,

Breakthrough time: > 480 minutes

Splash contact

Material: PVA

Breakthrough time: > 480 minutes

Clothing: Wear complete suit protecting against chemicals; the type of equipment should be appropriate for the concentration and amount of dangerous substance used.

Respirators: If air-purifying respirators are required, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls, or those approved under appropriate government standards such as NIOSH (US) or CEN (EU).

General hygiene measures

Wash thoroughly after handling. Wash contaminated clothing before reuse.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : Dark blue/black dispersion
Odour : Aromatic

Odour threshold	:	No data available
pH	:	No data available
Melting/freezing point	:	No data available
Boiling point/range	:	111 °C
Flash point	:	Not Applicable
Evaporation rate	:	No data available
Flammability	:	Not Applicable
Explosive limits	:	Not Applicable
Vapour pressure	:	No data available
Vapour density	:	No data available
Relative density	:	No data available
Solubility(ies)	:	No data available
Partition coefficient: <i>n</i> -octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available

9.2. Other safety information

No data available.

10. Stability and reactivity

10.1 Reactivity

No data available.

10.2. Chemical stability

Stable under normal temperatures and pressures under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidising agents.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

No data available.

Skin corrosion/irritation

May cause skin irritation.

Serious eye damage/eye irritation

May cause eye irritation.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

Damage to fetus possible.

Suspected human reproductive toxicant.

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available.

Aspiration hazard

No data available.

Routes of exposure

Eye contact, ingestion, inhalation, skin contact.

Signs and Symptoms of Exposure

Skin: inflammation (redness, swelling, itching and pain). Eyes: inflammation, tearing, impaired vision and pain.

Inhalation: cough, nose and throat pain.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

12.1. Toxicity

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6. Other adverse effects

No data available.

13. Disposal

13.1. Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations and directives on waste and hazardous waste. Offer surplus material to a licensed professional waste disposal professional.

Contaminated packaging

Dispose of as unused product.

14. Transport**14.1. UN number**

ADR/RID: 1993 IMDG: 1993 IATA: 1993

14.2. UN proper shipping name

ADR/RID: Flammable liquid, n.o.s. (toluene dispersion)

IMDG: Flammable liquid, n.o.s. (toluene dispersion)

IATA: Flammable liquid, n.o.s. (toluene dispersion)

14.3. Transport hazard class

ADR/RID: 3 IMDG: 3 IATA: 3

14.4. Packaging group

ADR/RID: II IMDG: II IATA: II

14.5. Environmental hazards

No hazards identified.

14.6. Special precautions for user

No special precautions required.

15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006, the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

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

No data available.

15.2 Chemical safety assessment

No chemical safety report/assessment was carried out for this product.

16. Other information**Warranty**

This material is for research and development use only. The information provided here is based upon the available information from material suppliers but not warranted as complete and is provided only as a guide. Ossila Limited shall not be held responsible for any damage resulting from use or handling of this product.