

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.05.2011

Version number 1

Revision: 01.05.2011

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

- Product identifier
- Trade name: **Ti-Nanoxide HT/SP**
- Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation
Screen-Printing Highly Transparent Nanocrystalline Titanium Dioxide
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
SOLARONIX SA
Rue de l'Ouriette 129, CH-1170 Aubonne, Switzerland
info@solaronix.com
T +41 21 821 22 80
www.solaronix.com
F +41 21 821 22 89
info@solaronix.com
- Emergency telephone number: Swiss Toxicological Information Center: +41 44 251 51 51

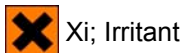
2 Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



R36/38: Irritating to eyes and skin.

- Information concerning particular hazards for human and environment:
The product has to be labelled in the latest valid version according to the calculation procedure of the "General Classification guideline for preparations of the EU" .
- Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- Label elements
- Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
- Hazard pictograms



- Signal word Warning
- Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.

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Precautionary statements

- P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see on this label).
 P362 Take off contaminated clothing and wash before reuse.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.

Other hazards
Results of PBT and vPvB assessment




- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description:

 Paste containing about 18% wt. of 8-10 nm titanium dioxide (TiO₂) anatase particles CAS 1317-70-0

Dangerous components:

8000-41-7	terpinéol (mélange d'isomères)	50-100%
	 Xi R38	
	 Skin Irrit. 2, H315	
78989-43-2	Red fuming nitric acid	≤2.5%
	 C R35;  O R8	
	 Ox. Liq. 2, H272;  Skin Corr. 1A, H314	

- **Additional information:** For the wording of the listed risk phrases, refer to section 16.

4 First aid measures

Description of first aid measures
After excessive inhalation:

In case of unconsciousness place patient in a stable laying down side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** If symptoms persist consult a doctor.

Information for doctor:
Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Firefighting measures

Suitable extinguishing agents:

 CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
 - Dilute with plenty of water.
 - Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
 - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protective equipment.
 - See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see section 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
 - The product does not contain any significant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:**
 - As a basis for the production of this document, the most current valid lists were used.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Keep away from food, beverages and petfood. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.

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· Protection of hands:


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Gloves material :

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which may vary from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked before use.

· Eye protection:


Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:

Form:	Liquid
Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value:	Not determined.
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· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100°C

· Flash point:	Not applicable.
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· Flammability (solid, gaseous):	Not applicable.
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· Ignition temperature:	Not applicable.
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· Decomposition temperature:	Not determined.
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· Self-igniting:	Product is not self igniting.
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· Danger of explosion:	Product does not present an explosion hazard.
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· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure at 20°C:	23 hPa
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· Density:	Not determined.
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· Relative density	Not determined.
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· Vapour density	Not determined.
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· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Segregation coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following hazards according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **Land transport ADR/RID (cross-border) :**
- **ADR/RID class:** -

- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **UN "Model Regulation":** -
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

- H272 May intensify fire; oxidiser.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- R35 Causes severe burns.
- R38 Irritating to skin.
- R8 Contact with combustible material may cause fire.

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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