





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

- **Product identifier**
- **Trade name:** ***IPS Natural Die Material Separator***
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** *Separating fluid for die material*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*Ivoclar Vivadent AG  
Bendererstrasse 2  
FL-9494 Schaan  
PRINCIPALITY OF LIECHTENSTEIN*
- 
- Tel: +423 235 35 35  
Fax: +423 235 33 60*
- **Further information obtainable from:**  
*Regulatory Affairs  
msds@ivoclarvivadent.com*
- **Emergency telephone number:** *+423 / 235 33 13*

## 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
-  **Xn; Harmful**  
*R48/20-62-65: Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of impaired fertility. Harmful: may cause lung damage if swallowed.*
-  **Xi; Irritant**  
*R38: Irritating to skin.*
-  **F; Highly flammable**  
*R11: Highly flammable.*
-  **N; Dangerous for the environment**  
*R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
- R67: Vapours may cause drowsiness and dizziness.*
- **Information concerning particular hazards for human and environment:**  
*The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.*
- **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 EU guidelines:**  
*The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.*
- **Code letter and hazard designation of product:**



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 02.03.2011

Version number 4

Revision: 02.03.2011

**Trade name: IPS Natural Die Material Separator**

(Contd. of page 1)

· **Hazard-determining components of labelling:**

*n*-hexane

· **Risk phrases:**

11 Highly flammable.

38 Irritating to skin.

48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

62 Possible risk of impaired fertility.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

23 Do not breathe fumes/aerosol.

33 Take precautionary measures against static discharges.

36/37 Wear suitable protective clothing and gloves.

57 Use appropriate container to avoid environmental contamination.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

|                   |   |         |
|-------------------|---|---------|
| CAS: 110-54-3     | <i>n</i> -hexane  | 50-100% |
| EINECS: 203-777-6 | ☒ Xn R48/20-62-65; ☒ Xi R38; ☒ F R11; ☒ N R51/53<br>R67 |         |

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

### 4 First aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air.

Seek medical treatment.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** Do not induce vomiting; call for medical help immediately.

· **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

· **Extinguishing media**

· **Suitable extinguishing agents:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **Special hazards arising from the substance or mixture** No further relevant information available.

(Contd. on page 3)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 02.03.2011

Version number 4

Revision: 02.03.2011

**Trade name: IPS Natural Die Material Separator**

(Contd. of page 2)

- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
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).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Store receptacle in a well ventilated area.
- **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 item 7.

- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

|                          |
|--------------------------|
| <b>110-54-3 n-hexane</b> |
|--------------------------|

|        |  |
|--------|--|
| WEL () | Long-term value: 72 mg/m <sup>3</sup> , 20 ppm |
|--------|--|

- **Additional information:** The lists valid during the making were used as basis.

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Usual hygienic measures for dental practice.  
Keep away from foodstuffs, beverages and feed.

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 02.03.2011

Version number 4

Revision: 02.03.2011

**Trade name: IPS Natural Die Material Separator**

(Contd. of page 3)

*Immediately remove all soiled and contaminated clothing*

*Wash hands before breaks and at the end of work.*

*Avoid contact with the skin.*

*Avoid contact with the eyes and skin.*

**· Respiratory protection:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.*

*Filter A*

**· Protection of hands:**



Protective gloves

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

*Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.*

*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*

**· Material of gloves**

*Nitrile rubber, NBR*

*Fluorocarbon rubber (Viton)*

*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies 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 prior to the application.*

**· Penetration time of glove material**

*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

**· Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

**· Information on basic physical and chemical properties**

**· General Information**

**· Appearance:**

|                           |                 |
|---------------------------|-----------------|
| <b>Form:</b>              | Fluid           |
| <b>Colour:</b>            | Colourless      |
| <b>· Odour:</b>           | Characteristic  |
| <b>· Odour threshold:</b> | Not determined. |

**· pH-value:** Not determined.

**· Change in condition**

|                                     |       |
|-------------------------------------|-------|
| <b>Melting point/Melting range:</b> | -95°C |
| <b>Boiling point/Boiling range:</b> | 69°C  |

**· Flash point:** -26°C

**· Ignition temperature:** 240°C

**· Self-igniting:** Product is not selfigniting.

**· Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 02.03.2011

Version number 4

Revision: 02.03.2011

**Trade name: IPS Natural Die Material Separator**

(Contd. of page 4)

|   |  |
|---|--|
| · <b>Explosion limits:</b>                          |  |
| <b>Lower:</b>                                       | 1.2 Vol %                                  |
| <b>Upper:</b>                                       | 7.4 Vol %                                  |
| · <b>Vapour pressure at 20°C:</b>                   | 160 hPa                                    |
| · <b>Density at 20°C:</b>                           | 0.65 g/cm <sup>3</sup>                     |
| · <b>Relative density</b>                           | Not determined.                            |
| · <b>Vapour density</b>                             | Not determined.                            |
| · <b>Evaporation rate</b>                           | Not determined.                            |
| · <b>Solubility in / Miscibility with water:</b>    | Insoluble.                                 |
| · <b>Segregation coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b>                                 |  |
| <b>Dynamic:</b>                                     | Not determined.                            |
| <b>Kinematic:</b>                                   | Not determined.                            |
| · <b>Other information</b>                          | No further relevant information available. |

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under normal handling and storage conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Reacts with strong oxidizing agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** None under normal conditions of storage and use.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

**110-54-3 n-hexane**

|        |      |                      |
|--------|------|----------------------|
| Oral   | LD50 | 28710 mg/kg (rat)    |
| Dermal | LD50 | >2000 mg/kg (rabbit) |

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

### 12 Ecological information

- **Toxicity**
- **Acquatic 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.

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 02.03.2011

Version number 4

Revision: 02.03.2011

**Trade name: IPS Natural Die Material Separator**

(Contd. of page 5)

- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

|                                   |
|-----------------------------------|
| · <b>European waste catalogue</b> |
| 20 01 13*   solvents              |

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 3 (F1) Flammable liquids.
- **Danger code (Kemler):** 33
- **UN-Number:** 1208
- **Packaging group:** II
- **Hazard label:** 3
- **Special marking:** Symbol (fish and tree)
- **UN proper shipping name:** 1208 HEXANES
- **Tunnel restriction code** D/E

· **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1208
- **Label** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** Yes  
Symbol (fish and tree)

(Contd. on page 7)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 02.03.2011

Version number 4

Revision: 02.03.2011

**Trade name: IPS Natural Die Material Separator**

(Contd. of page 6)

· **Proper shipping name:** HEXANES

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 3  
 · **UN/ID Number:** 1208  
 · **Label:** 3  
 · **Packaging group:** II  
 · **Proper shipping name:** HEXANES

· **Environmental hazards:** Product contains environmentally hazardous substances: n-hexane

· **Special precautions for user** Warning: Flammable liquids.

· **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**

R11 Highly flammable.

R38 Irritating to skin.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R62 Possible risk of impaired fertility.

R65 Harmful: may cause lung damage if swallowed.

R67 Vapours may cause drowsiness and dizziness.