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

1.1 Product identifier
Trade name: IPS Natural Die Material Separator

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

1.3 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
sds@ivoclarvivadent.com

1.4 Emergency telephone number: +423 / 235 33 13 (Ivoclar Vivadent AG, FL-9494 Schaan, Liechtenstein)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Flam. Liq. 2  H225  Highly flammable liquid and vapour.
Skin Irrit. 2  H315  Causes skin irritation.
Repr. 2  H361f  Suspected of damaging fertility.
STOT SE 3  H336  May cause drowsiness or dizziness.
STOT RE 2  H373  May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1  H304  May be fatal if swallowed and enters airways.
Aquatic Chronic 2  H411  Toxic to aquatic life with long lasting effects.

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

Hazard pictograms

GHS02  GHS07  GHS08  GHS09

Signal word Danger

Hazard-determining components of labelling:
n-hexane
Hazard statements
H225  Highly flammable liquid and vapour.
H315  Causes skin irritation.
H361f  Suspected of damaging fertility.
H336  May cause drowsiness or dizziness.
H373  May cause damage to organs through prolonged or repeated exposure.
H304  May be fatal if swallowed and enters airways.
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 12.10.2017 Version number 7 Revision: 27.07.2017

Trade name: IPS Natural Die Material Separator

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P233 Keep container tightly closed.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.

Labelling of packages where the contents do not exceed 125 ml

Hazard pictograms

GHS02 GHS07 GHS08 GHS09

Signal word Danger

Hazard-determining components of labelling:
n-hexane

Hazard statements
H361f Suspected of damaging fertility.
H304 May be fatal if swallowed and enters airways.

Precautionary statements
P201 Obtain special instructions before use.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P405 Store locked up.

2.3 Other hazards

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

<table>
<thead>
<tr>
<th>CAS: 110-54-3</th>
<th>n-hexane</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 203-777-6</td>
<td>Flam. Liq. 2, H225; Repr. 2, H361f; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336</td>
</tr>
<tr>
<td>50-100%</td>
<td></td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information: Immediately remove any clothing soiled by the product.

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.

(Contd. on page 3)
Trade name: **IPS Natural Die Material Separator**

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
  - Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray.
  - For safety reasons unsuitable extinguishing agents: Water with full jet

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

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

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.

- **6.2 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.

- **6.3 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

- **6.4 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.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
  - Only adequately trained personnel should handle this product.
  - Ensure good ventilation/exhaustion at the workplace.
  - Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
  - Prevent formation of aerosols.
  - For use in dentistry only.

- **Information about fire- and explosion protection:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**
  - Storage:
    - Requirements to be met by storerooms and receptacles:
      - Store in a cool location.
      - Store only in the original receptacle.
    - 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.
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

| CAS: 110-54-3 n-hexane | WEL Long-term value: 72 mg/m³, 20 ppm |

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

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Usual hygienic measures for dental practice and dental laboratories.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.

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.

Recommended filter device for short term use:
Filter A1
Filter A2
Filter A3

Protection of hands:

Protective gloves

After use of gloves apply skin-cleaning agents and skin cosmetics.

Material of gloves
Nitrile rubber, NBR
Fluorocarbon rubber (Viton)
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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
### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- **General Information**
  - **Appearance:** Fluid
  - **Colour:** Colourless
  - **Odour:** Characteristic
  - **Odour threshold:** Not determined.
  - **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** -95 °C
  - **Boiling point/Boiling range:** 69 °C

- **Flash point:** -26 °C

- **Ignition temperature:** 240 °C

- **Self-igniting:** Product is not self-igniting.

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

- **Explosion limits:**
  - **Lower:** 1.2 Vol %
  - **Upper:** 7.4 Vol %

- **Vapour pressure at 20 °C:** 160 hPa

- **Density at 20 °C:** 0.65 g/cm³

- **Relative density:** Not determined.

- **Vapour density:** Not determined.

- **Evaporation rate:** Not determined.

- **Solubility in / Miscibility with water:** Insoluble.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - **Dynamic:** Not determined.
  - **Kinematic:** Not determined.

#### 9.2 Other information

- No further relevant information available.

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

- No further relevant information available.

#### 10.2 Chemical stability

- Stable under normal handling and storage conditions.

#### 10.3 Thermal decomposition / conditions to be avoided

- No decomposition if used according to specifications.

#### 10.4 Conditions of hazardous reactions

- Reacts with strong oxidising agents.

#### 10.5 Incompatible materials

- No further relevant information available.

#### 10.6 Hazardous decomposition products

- None under normal conditions of storage and use.

(Contd. on page 6)
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity. Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>CAS: 110-54-3 n-hexane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD&lt;sub&gt;50&lt;/sub&gt; 28710 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD&lt;sub&gt;50&lt;/sub&gt; &gt;2000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation. Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation. Based on available data, the classification criteria are not met.

Additional toxicological information:
No further relevant information available.

Germ cell mutagenicity. Based on available data, the classification criteria are not met.

Carcinogenicity. Based on available data, the classification criteria are not met.

Reproductive toxicity
Suspected of damaging fertility.

STOT—single exposure
May cause drowsiness or dizziness.

STOT—repeated exposure
May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard
May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.

12.4 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.
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.
Toxic for aquatic organisms

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Take to an approved landfill or a waste incineration plant, under conditions approved by the local authority.
**Trade name:** IPS Natural Die Material Separator

- **European waste catalogue**
  - 20 01 13* solvents

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

### SECTION 14: Transport information

- **14.1 UN-Number**
  - **ADR,RID,ADN, IMDG, IATA** UN1208

- **14.2 UN proper shipping name**
  - **ADR/RID/ADN** 1208 HEXANES mixture, ENVIRONMENTALLY HAZARDOUS
  - **IMDG** HEXANES mixture, MARINE POLLUTANT
  - **IATA** Hexanes mixture

- **14.3 Transport hazard class(es)**
  - **ADR/RID/ADN**
    - **Class** 3 (F1) Flammable liquids.
    - **Label** 3

  - **IMDG**
    - **Class** 3 Flammable liquids.
    - **Label** 3

  - **IATA**
    - **Class** 3 Flammable liquids.
    - **Label** 3

- **14.4 Packing group**
  - **ADR,RID,ADN, IMDG, IATA** II

- **14.5 Environmental hazards:**
  - Product contains environmentally hazardous substances: n-hexane
    - **Marine pollutant:** Yes
    - **Special marking (ADR/RID/ADN):** Symbol (fish and tree)
    - **Special marking (IMDG):** Symbol (fish and tree)

- **14.6 Special precautions for user**
  - **Warning:** Flammable liquids.
  - **Danger code (Kemler):** 33
  - **EMS Number:** F-E,S-D

(Contd. on page 8)
**Stowage Category**
- E

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
- Not applicable.

**Transport/Additional information:**
- **ADR/RID/ADN**
  - Limited quantities (LQ): 1L
    - Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml
- **Limited quantities (LQ)**
  - Code: E2
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 500 ml

**IMDG**
- **Limited quantities (LQ)**
  - Code: E2
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 500 ml
- **Transport category**
  - 2
- **Tunnel restriction code**
  - D/E

**UN "Model Regulation":**
- UN 1208 HEXANES MIXTURE, ENVIRONMENTALLY HAZARDOUS, 3, II, ENVIRONMENTALLY HAZARDOUS

**SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
  - Qualifying quantity (tonnes) for the application of lower-tier requirements: 200 t
  - Qualifying quantity (tonnes) for the application of upper-tier requirements: 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII
  - Conditions of restriction: 3

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

**SECTION 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**
- H225 Highly flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H336 May cause drowsiness or dizziness.
- H361f Suspected of damaging fertility.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

**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)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

* Data compared to the previous version altered.