

## SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier:

**HyCeram Bond THX**

For HyCeram in the following colours:

opaque colors: organic white; deep white; indian yellow; oriental orange; granada red; zirkon red; columbia blue; coral blue; arizona blue; inca turquoise; lotus green; lakota pink; Persian violet; platin grey; veneto brown; onyx black; deep black.

pearl colours: pearl white; pearl silver; pearl rose; pearl gold; pearl red; pearl bronze; pearl anthracite; sparkling brown sparkling black.

luminex colors: luminex white; luminex yellow; luminex turquoise; luminex green.

1.2. Relevant identified uses of the mixture and uses advised against:

Product to bond HyCeram to metals, for professional use.

1.3. Details of the supplier of the safety data sheet:

**Manufacturer:**

**Invicon Chemical Solutions GmbH**

Schweizer Strasse 96

6830 Rankweil

Tel: +43-5522-45301

Fax: +43-5522-45301-10

1.3.1. Responsible person:

Peter Bubendorfer

E-mail:

[p.bubendorfer@invicon.at](mailto:p.bubendorfer@invicon.at)

1.4. Emergency telephone number:

**Public Toxicological Health Service** (ETTSZ)

1096 Budapest, Nagyvárad tér 2.

Tel.: 06 1 476 6464, 06 80 201 199 (0-24 h)

### SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the mixture:

Classification according to Regulation 1272/2008/EC (CLP):

Skin irritation 2 – H315

Eye irritation 2 – H319

Specific target organ toxicity (STOT) – single exposure 3 – H335

**Warning H statements:**

**H315** – Causes skin irritation.

**H319** – Causes serious eye irritation.

**H335** – May cause respiratory irritation.

2.2. Label elements:

**Components which define the hazards:** Urethane acrylate oligomer and isobornylacrylate

GHS07



WARNING

**Warning H statements:**

**H315** – Causes skin irritation.

**H319** – Causes serious eye irritation.

**H335** – May cause respiratory irritation.

**Precautionary P statements:****P261** – Avoid breathing vapours/spray.**P280** – Wear protective gloves, eye protection/face protection.**P302 + P352** – IF ON SKIN: Wash with plenty of soap and water.**P304 + P340 + P312** – IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.**P305 + P351 + P338** – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P501** – Dispose of contents/container in accordance with local/regional/national/international regulations.

Product contains components of unknown acute toxicity in &lt; 21,5%.

2.3. Other hazards:

May cause sensitization by skin contact.

Results of PBT and vPvB assessment: no data available.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substance:

Not applicable.

3.2. Mixture:

Adhesive based on acrylate resins.

Mixture of the following substances, containing non-hazardous substances and colouring agents.

The pigments are not considered as hazardous, or their concentrations do not reach the extent stated in the relevant regulations, therefore it is not necessary to indicate them in the safety data sheet.

Description	CAS number	EU number	REACH reg. nr.	Conc. (%)	Classification: 1272/2008/EC (CLP)		
					Hazard pict.	Hazard cat.	H phrase
<b>Urethane acrylate oligomer and isobornylacrylate*</b>	5888-33-5	227-561-6	-	72,5-87,5	GHS07 Warning	Skin Irrit. 2 Eye Irrit. 2 STOT SE 3	H315 H319 H335
<b>N,N-Dimethylacrylamide*</b>	2680-03-7	220-237-5	-	< 21,5	-	-	-
<b>Aerosil**/**</b> (Silicon dioxide, chemically prepared)	112945-52-5	601-216-3	-	2	-	not classified	-

\*: Substance classified by the manufacturer or substance which has no obligatory classification according to the EU regulations.

\*\*: A new CAS, 112945-52-5, has been assigned to amorphous, fumed silica to distinguish it from crystalline silica. According to the EPA, this product meets TSCA requirements and is listed on the TSCA inventory as silica with CAS 7631-86-9.

For the full text of H phrases: see Section 16.

**SECTION 4: FIRST AID MEASURES**4.1. Description of first aid measures:

General advice: remove contaminated or saturated clothing immediately and dispose of safely.

IN CASE OF INGESTION:

Measures:

- Obtain immediate medical attention.

IN CASE OF INHALATION:

Measures:

- Take the victim into fresh air, loosen his clothes and let him rest.
- In case of complaints, obtain medical help.

IN CASE OF SKIN CONTACT:

Measures:

- Wash the skin surface immediately with plenty of water and soap.
- If skin irritation persists, obtain medical help.

**IN CASE OF EYE CONTACT:**

**Measures:**

- In case of contact with eyes flush with water holding eyelids apart and moving the eyeballs.
- If eye irritation persists, consult a specialist.

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

No data available.

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

No data available.

**SECTION 5: FIREFIGHTING MEASURES**

5.1. **Extinguishing media:**

5.1.1. **Suitable extinguishing media:**

Water fog, foam, dry chemical, carbon dioxide.

5.1.2. **Unsuitable extinguishing media:**

None known.

5.2. **Special hazards arising from the substance or mixture:**

The formation of dangerous decomposition products greatly depends on the circumstances of the combustion. A complex mixture of airborne solid, liquid and gas substances may occur, such as carbon monoxide, carbon dioxide and unidentified compounds.

5.3. **Advise for firefighters:**

No special measures required.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1. **Personal precautions, protective equipment and emergency procedures:**

6.1.1. **For non-emergency personnel:**

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. **For emergency responders:**

Avoid contact with skin, eyes and clothing.

Wear appropriate personal protective equipment.

6.2. **Environmental precautions:**

Dispose the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3. **Methods and material for containment and cleaning up:**

Collect the spilled product with absorbent (sawdust, diatomaceous earth, universal binder), then place into a suitable, closed, properly labelled chemical waste container for removal/disposal.

6.4. **Reference to other sections:**

For further and detailed information see section 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

7.1. **Precautions for safe handling:**

Observe conventional hygiene precautions.

Only adequate trained personnel should handle this product.

Keep out of reach of children.

When using, do not eat, drink or smoke.

Use only with adequate ventilation.

Technical measures:

Ensure adequate ventilation.

Precautions against fire and explosion:

No special measures required.

7.2. **Conditions for safe storage, including any incompatibilities:**

Technical measures and storage condition:

Keep containers tightly closed.

Store in cool, dry, well ventilated areas away from sources of ignition and heat.

Store at room temperature (12-28 °C/54-82 °F).

Store in a dry place.

Incompatible materials: none known.

Packaging material: no special prescriptions.

7.3. **Specific end use(s):**

No specific instructions available.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters:**

Occupational exposure limit values:

The components of the mixture are not regulated with exposure limit value.

<b>DNEL</b>		Routes of exposure	Exposure frequency:	Remarks:
Worker	Consumer			
no data available	no data available	Dermal	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Inhalative	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Oral	Short term (acute) Long term (repeated)	no data available

<b>PNEC</b>			Exposure frequency:	Remarks:
Water	Soil	Air		
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available

**8.2. Exposure controls:**

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

**8.2.1 Appropriate engineering controls:**

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

Ensure adequate ventilation.

**8.2.2 Individual protection measures, such as personal protective equipment:**

Observe the general safety regulations when handling chemicals.

Avoid contact with skin, eyes and clothes.

Do not eat, drink, smoke or sniff when handling the product.

Wash hands and/or face before breaks and immediately after handling the product.

1. Eye/face protection: use appropriate protective glasses with side-shields (EN 166).

2. Skin protection:

a. Hand protection: use appropriate protective gloves (EN 374).

b. Other: use appropriate protective clothes.

3. Respiratory protection: use only with adequate ventilation.

4. Thermal hazards: none known.

**8.2.3. Environmental exposure controls:**

No specific prescription.

**The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.**

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties:**

Parameter	Test method:	Remarks:
1. <b>Appearance:</b>		liquid with a diverging rheology
2. <b>Odour:</b>		no data available
3. <b>Odour threshold:</b>		no data available
4. <b>pH value:</b>		no data available
5. <b>Melting point/ freezing point:</b>		no data available
6. <b>Initial boiling point and boiling range:</b>		no data available
7. <b>Flash point:</b>		no data available
8. <b>Evaporation rate:</b>		no data available
9. <b>Flammability (solid, gas):</b>		no data available

10. Upper/lower flammability or explosive limits:	no data available
11. Vapour pressure:	no data available
12. Vapour density:	no data available
13. Relative density:	no data available
14. Solubility(ies):	no data available
15. Partition coefficient: n-octanol/water:	no data available
16. Auto-ignition temperature:	no data available
17. Decomposition temperature:	no data available
18. Viscosity:	no data available
19. Explosive properties:	no data available
20. Oxidizing properties:	no data available

9.2. Other information:

No further information available.

**SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity:

None known.

10.2. Chemical stability:

Stable within normal temperature and general work conditions.

10.3. Possibility of hazardous reactions:

None known.

10.4. Conditions to avoid:

None known.

10.5. Incompatible materials:

None known.

10.6. Hazardous decomposition products:

None if used properly.

**SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects:

Acute toxicity: based on the information available, the criteria for classification is not fulfilled.

Skin corrosion/irritation: causes skin irritation.

Serious eye damage/eye irritation: causes serious eye irritation.

Respiratory or skin sensitisation: based on the information available, the criteria for classification is not fulfilled.

Germ cell mutagenicity: based on the information available, the criteria for classification is not fulfilled.

Carcinogenicity: based on the information available, the criteria for classification is not fulfilled.

Reproductive toxicity: based on the information available, the criteria for classification is not fulfilled.

STOT-single exposure: may cause respiratory irritation.

STOT-repeated exposure: based on the information available, the criteria for classification is not fulfilled.

Aspiration hazard: based on the information available, the criteria for classification is not fulfilled.

## 11.1.1. For substances subject to registration, brief summaries of the information derived from the test conducted:

No data available.

## 11.1.2. Relevant toxicological properties of the hazardous substances:

Information about the product:

LD50 (oral, rat): &gt; 2000 mg/kg

LD50 (dermal, rat): &gt; 2000 mg/kg

Information about the components:

**Aerosil** (CAS: 112945-52-5):

LD50 (oral, rat): &gt; 3300 mg/kg

LD50 (oral, rat): &gt; 5000 mg/kg (OECD Test Guideline 401 comparable product)

LC50 (inhalation, rat): 0,139 mg/l/4 h (analogous OECD method - maximum concentration attainable in experiments)

LD50 (dermal, rabbit): &gt; 5000 mg/kg (comparable product)

Skin irritation – Rabbit: not irritating (analogous OECD method)

Eye irritation – Rabbit: not irritating (analogous OECD method)

Repeated dose toxicity – Oral: No negative effects. Inhalation: No irreversible changes and no indication of silicosis.

Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA.

Human experience: Silicosis or other product specific illnesses of the respiratory tract have not been reported.

## 11.1.3. Information on likely routes of exposure:

Ingestion, inhalation, skin contact, eye contact.

## 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:

Signs and symptoms of overexposure: may cause eye and respiratory irritation.

## 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Causes skin irritation.

Causes serious eye irritation.  
May cause respiratory irritation.

- 11.1.6. Interactive effects:  
No data available.
- 11.1.7. Absence of specific data:  
No information.
- 11.1.8. Other information:  
No data available.

## SECTION 12: ECOLOGICAL INFORMATION

- 12.1. Toxicity:  
No data available about the product.  
Information about the components:  
**Aerosil** (CAS: 112945-52-5):  
LC50 (Brachydanio rerio): > 10000 mg/l / 96 h  
Method: OECD 203  
The reported toxic effects relate to the nominal concentration.  
EC50 Daphnia magna: > 1000 mg/l / 24 h  
Method: OECD 202  
The reported toxic effects relate to the nominal concentration.
- 12.2. Persistence and degradability:  
No data available.
- 12.3. Bioaccumulation potential:  
No data available.
- 12.4. Mobility in soil:  
No data available about the product.  
Information about the components:  
**Aerosil** (CAS: 112945-52-5): No remarkable mobility in soil is to be expected.
- 12.5. Results of PBT and vPvB assessment:  
No data available.
- 12.6. Other adverse effects:  
The product must not enter sewers, ground water, surface water or soil.  
Water hazard class (self-assessment): 1 – slightly hazardous

## SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods:  
Disposal according to the local regulations.
- 13.1.1. Information regarding the disposal of the product:  
Take to a special waste incineration plant, in line with local regulations.  
European Waste Code:  
08 04 09\* waste adhesives and sealants containing organic solvents or other dangerous substances  
\*: hazardous waste
- 13.1.2. Information regarding the disposal of the packaging:  
Dispose according to the relevant regulations.
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:  
None known.
- 13.1.4. Sewage disposal:  
None known.
- 13.1.5. Special precautions for any recommended waste treatment:  
No data available.

## SECTION 14: TRANSPORT INFORMATION

**Not dangerous good in sense of the transport regulations.**

- 14.1. UN Number:  
None.
- 14.2. UN proper shipping name:  
None.
- 14.3. Transport hazard class(es):  
None.
- 14.4. Packaging group:  
None.
- 14.5. Environmental hazards:  
No relevant information available.
- 14.6. Special precautions for user:  
**Invicon Chemical Solutions GmbH**

No relevant information available.

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

## SECTION 15: REGULATORY INFORMATION

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

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

- 15.2. Chemical safety assessment: no information available.

## SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet:

The safety data sheet has been revised according to Regulation (EU) 2015/830 (Section 1-16).

The classification of the components and the mixture have been amended according to Regulation 1272/2008/EC (CLP) and its amendments.

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: carcinogenicity, mutagenicity and toxicity for reproduction. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent, Very Bioaccumulative. n.d.: not defined. n.a.: not applicable.

Data sources: data provided by the manufacturer (composition, safety data sheet of the components)

Methods used for the classification according to Regulation 1272/2008/EC:

Skin irritation 2 – H315	Based on calculation method
Eye irritation 2 – H319	Based on calculation method
Specific target organ toxicity (STOT) – single exposure 3 – H335	Based on calculation method

Relevant H-Phrases (number and full text) of Section 2 and 3:

**H315** – Causes skin irritation.

**H319** – Causes serious eye irritation.

**H335** – May cause respiratory irritation.

Training advice: no data available.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

Safety data sheet was prepared by: ToxInfo Kft.

Professional help regarding the explanation of the safety data sheet:  
+36 70 335 8480; info@msds-europe.com