SAFETY DATA SHEET
Permabond Initiator 46

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

1.1. Product identifier

Product name Permabond Initiator 46

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

Identified uses Activator.

1.3. Details of the supplier of the safety data sheet

Supplier

Permabond Engineering Adhesives Ltd.
Wessex Way
Colden Common
Winchester
Hampshire SO21 1WP
United Kingdom
Tel: +44 (0)1962 711 661
Fax: +44 (0)1962 711 662
info.europe@permabond.com

1.4. Emergency telephone number

Emergency telephone UK +44 (0)1962 711 661 USA 0800 640 7599 Asia +86 (0)21 5773 4913

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319

Environmental hazards Not Classified

2.2. Label elements

Pictogram

Signal word Warning

Hazard statements

H302+H312 Harmful if swallowed or in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements

P280 Wear protective gloves, eye and face protection.
P302+P352a IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Contains 3,5-DIETHYL-1,2-DIHYDRO-1-PHENYL-2-PROPYLPYRIDINE, N-BUTYLANILINE

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Supplementary precautionary statements

P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container in accordance with existing Community, National and local regulations.

2.3. Other hazards

None under normal conditions. This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

3,5-DIETHYL-1,2-DIHYDRO-1-PHENYL-2-PROPYLPYRIDINE **60-100%**

CAS number: 34562-31-7 EC number: 252-091-3

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319

N-BUTYLANILINE **1-5%**

CAS number: 1126-78-9 EC number: 214-425-6

Classification
Acute Tox. 4 - H302

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move the exposed person to fresh air. Get medical attention if any discomfort continues.

Ingestion Rinse mouth thoroughly with water. DO NOT induce vomiting. Get medical attention immediately.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact Remove any contact lenses and open eyelids wide apart. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Ingestion No specific symptoms known. May cause stomach pain or vomiting.

Skin contact Skin irritation.

Eye contact Irritating and may cause redness and pain.

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

Notes for the doctor No specific recommendations. Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media Water. Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Burning produces irritating, toxic and obnoxious fumes. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

5.3. Advice for firefighters

Special protective equipment for firefighters Wear self contained breathing apparatus and protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid contact with skin and eyes. Do not ingest or inhale. Avoid eating, drinking and smoking when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in closed original container at temperatures between 5°C and 25°C. Never return unused material to storage receptacle.

7.3. Specific end use(s)

Specific end use(s) Adhesive. Activator.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Ingredient comments No exposure limits known for ingredient(s).

8.2. Exposure controls

Protective equipment

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Appropriate engineering controls	Provide adequate general and local exhaust ventilation.
Eye/face protection	The following protection should be worn: Chemical splash goggles or face shield. Personal eye protection should conform to EN 166
Hand protection	It is recommended that chemical-resistant, impervious gloves are worn. Gloves should conform to EN 374. For exposure up to 4 hours, wear gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.4 mm The selected gloves should have a breakthrough time of at least 0.5 hours. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.4 mm The selected gloves should have a breakthrough time of at least 8 hours. The breakthrough time for any glove material may be different for different glove manufacturers. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.
Other skin and body protection	Employee must wear appropriate protective clothing and equipment to prevent any possibility of skin contact with this substance.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Use of good industrial hygiene practices is required.
Respiratory protection	Ensure adequate ventilation of the working area. Respiratory protection may be required if excessive airborne contamination occurs. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Organic vapour filter. Type A.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Amber.
Odour	Sweetish.
Odour threshold	Not determined.
pH	Not relevant.
Melting point	Not determined.
Initial boiling point and range	162°C
Flash point	>140°C
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0.97
Solubility(ies)	Insoluble in water. Soluble in the following materials: Organic solvents.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not available.

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Viscosity	~70 mPa s @ 23°C
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information

Other information	Not relevant.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	There are no known reactivity hazards associated with this product.

10.4. Conditions to avoid

Conditions to avoid	Avoid contact with the following materials: Acids. Oxidising agents.

10.5. Incompatible materials

Materials to avoid	Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products	Decomposes upon heating to release toxic fumes of nitrogen oxides, carbon monoxide, carbon dioxide, and hydrogen cyanide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Aspiration hazard

Aspiration hazard	Based on available data the classification criteria are not met.

Inhalation	Vapour may irritate respiratory system/lungs.
Ingestion	Harmful if swallowed.
Skin contact	Irritating to skin.
Eye contact	Irritating to eyes.

Toxicological information on ingredients.

3,5-DIETHYL-1,2-DIHYDRO-1-PHENYL-2-PROPYLPYRIDINE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	500.1

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Species	Rat
ATE oral (mg/kg)	500.1

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	1,000.1
Species	Rabbit
ATE dermal (mg/kg)	1,000.1

Acute toxicity - inhalation

Notes (inhalation LC_{50})	No specific test data are available.

Skin corrosion/irritation

Skin corrosion/irritation	Moderately irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Moderately irritating.

Respiratory sensitisation

Respiratory sensitisation	May cause respiratory system irritation.

Skin sensitisation

Skin sensitisation	No specific test data are available.

Germ cell mutagenicity

Genotoxicity - in vitro	No specific test data are available.

Carcinogenicity

Carcinogenicity	No specific test data are available.

Reproductive toxicity

Reproductive toxicity - fertility	No specific test data are available.

Specific target organ toxicity - single exposure

STOT - single exposure	No specific test data are available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	No specific test data are available.

Aspiration hazard

Aspiration hazard	No specific test data are available.

N-BUTYLANILINE

Acute toxicity - oral

Notes (oral LD_{50})	No information available.

Acute toxicity - dermal

Notes (dermal LD_{50})	No information available.

Acute toxicity - inhalation

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Notes (inhalation LC_{50}) No information available.

Skin corrosion/irritation

Skin corrosion/irritation Not available.

Serious eye damage/irritation

Serious eye damage/irritation Not available.

Respiratory sensitisation

Respiratory sensitisation Not available.

Skin sensitisation

Skin sensitisation Not available.

Germ cell mutagenicity

Genotoxicity - in vitro Not available.

Carcinogenicity

Carcinogenicity Not available.

Reproductive toxicity

Reproductive toxicity - fertility Not available.

Specific target organ toxicity - single exposure

STOT - single exposure Not available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not available.

Aspiration hazard

Aspiration hazard Not available.

SECTION 12: Ecological Information

Ecotoxicity The product is not expected to be hazardous to the environment.

12.1. Toxicity

Toxicity The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.2. Persistence and degradability

Persistence and degradability No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility No data available.

12.5. Results of PBT and vPvB assessment

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Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste disposal should be in accordance with existing Community, National and local regulations Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

Disposal methods Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Waste class 08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances.

SECTION 14: Transport information

General The product is not classified as dangerous for carriage.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EH40/2005 Workplace exposure limits.
Health and Safety at Work etc. Act 1974 (as amended).

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EU legislation	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 (as amended). 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)
Guidance	Workplace Exposure Limits EH40. CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date	01/11/2017
Revision	4
Supersedes date	05/06/2015
Hazard statements in full	H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation.