

SAFETY DATA SHEET

Product name: ANA SINGLE BOND

SDS Drawn up: 1996-09-09 SDS Revised: 2010-01-04

1. Identification of the substance / preparation and of the company

Trade name: ANA SINGLE BOND

Chemical name:

Field of application: Dental adhesive

Supplier: Nordiska Dental AB

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2. Hazards identification

Classification: Irritant (Xi, R36/37/38).

Adverse physicochemical effects: Very flammable.

Adverse human health effects: Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. Acetone vapours may cause drowsiness and dizziness.

Adverse environmental effects:-

3. Composition / information on ingredients

| Component | CAS-no | Einecs-no | Content (%) | Symbol letters* | R-phrases** |
|---|----------|-----------|-------------|-----------------|--------------|
| 2-Hydroxyethyl Methacrylate (HEMA) | 868-77-9 | 212-782-2 | 1-5 | Xi | R43 |
| Triethylene glycol dimethacrylate (TEDMA) | 109-16-0 | 203-652-6 | 1-5 | Xi | R36/37/38 |
| Methacrylated phosphoric acid | | | 5-10 | Xi | R36/37/38 |
| Acetone | 67-64-1 | 200-662-2 | 70-75 | F, Xi | R11-36-66-67 |
| Others | | | 1-5 | | |

*Symbol letters and categories of danger: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Very flammable, N=Dangerous for the environment

** The full text of the phrase is listed under heading 16.

4. First aid measures

Inhalation: Get fresh air and rest. Rinse the nose, the mouth and the throat with water, provided that the person is fully conscious. If the person is not breathing, give artificial respiration and get medical attention as soon as possible.

Skin contact: Take off contaminated clothing. Wash off with soap and water.

Eye contact: Keep the eyelids wide apart and flush with plenty of water for at least 15 minutes. Get medical attention.

Ingestion: Do not induce vomiting. Get medical attention as soon as possible. Gastric lavage may be necessary.

Further information: Never give any food and/or drink to an unconscious person. Please show this safety data sheet to the doctor on duty. Get medical attention in case of uncertainty.

5. Fire-fighting measures

Suitable extinguishing media: Foam, dry chemical powder or water.

Extinguishing media which must not be used: Jet of water.

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: Acetone vapours may be explosive together with air, at room temperature. Contaminated clothing is flammable. The fumes are heavier-than-air and will accumulate near the floor and in low-lying spaces. When catching fire irritating fumes containing carbon monoxide and carbon dioxide may form.

Special protective equipment: Protective equipment in compliance with national regulations.

Further information: Take precautionary measures against static discharges and keep away from sources of ignition.

6. Accidental release measures

Personal precautions: Notice the risk of fire. See to that the ventilation is sufficient. See to that the premises are properly aired.

Environmental precautions: Prevent the spillage from reaching the outlets.

Methods for cleaning up: Collect mechanically. Spillage should be cured before disposal.

7. Handling and storage

Handling: The product should be handled with care and in accordance with strict hygiene practises, and in well-ventilated areas only.

Storage: Recommended storage temperature < 25°C. Store in a dark and cool place. Keep in a solvent-resistant and tightly closed plastic container. Can be stored for two years, counting from the date of manufacture, always provided that the product is properly stored.

8. Exposure controls / personal protection

Exposure limit values: Acetone: OSHA Permissible Exposure Limit (PEL): Time Weighted Average (TWA): 1 000 ppm. NIOSH Recommended Exposure Limit (REL): TWA: 250 ppm. NIOSH Immediately Dangerous to Life or Health (IDLH): 2 500 ppm [10 % LEL].

Exposure controls: All work should take place in well ventilated areas, in accordance with strict hygiene practises. All work should take place in suitable premises, in accordance with the existing legislation and regulations. See also heading 7. Handling and storage.

Occupational exposure controls:

- **respiratory protection:** Protective measures, e.g. a mask, could be needed.
- **hand protection:** Protective gloves should be used in order to avoid exposure.
- **eye protection:** Eye protectors should be used in order to avoid exposure.
- **skin protection:** Protective clothing should be used in order to avoid exposure.

Environmental exposure controls:-

Further information: Methacrylates may cause sensitization by skin contact. Therefore, avoid skin contact. Inhaling aerosols/dust containing methacrylates should also be avoided.

9. Physical and chemical properties

General information:

- Appearance: Yellowish viscous liquid.
- Odour: Acetone.

Important health, safety and environmental information:

- | | | | |
|---|-------------------------------------|-----------------------------------|-------------------------------|
| · pH: | < 7,0. | · Boiling point/interval: | Ca. 56°C. |
| · Flash point: | > -20°C. | · Flammability (solid, gas): | - |
| · Explosive properties: | IL: 2,5 % (Vol). uL: 13 % (Vol). | · Oxidising properties: | - |
| · Vapour pressure: | 230 mbar (20°C). | · Density: | 0,8 g/cm ³ (20°C). |
| · Water solubility: | Ca. 80 g/L (20°C). | · Solubility in organic solvents: | - |
| · Vapour density: | > 1 (air = 1). | · Evaporation rate: | - |
| · Partition coefficient: n- octanol/water: | - | · Viscosity: | - |

10. Stability and reactivity

Conditions to avoid: Heat and light. Decomposes at temperatures > 60°C.

Materials to avoid: Keep away from reducing agents, heavy metals and free radicals.

Hazardous decomposition products: When catching fire irritating fumes containing carbon monoxide and carbon dioxide may form.

Further information: Cures during exposure to visible- or UV-light.

11. Toxicological information

Dangerous-to-health effects and symptoms related to:

- **inhalation:** May be irritating to the respiratory organ. May cause dizziness, headache and feeling of sickness. Inhaling a large dose may cause unconsciousness.
- **ingestion:** May be irritating. May cause adverse health-effects in the mucous membranes and in the central nervous system. May cause headache, stomach-ache, feeling of sickness, vomiting, dizziness and unconsciousness.
- **skin contact:** May be irritating to the skin. The substance may have an allergy-forming effect.
- **eye contact:** May be irritating. May cause irreversible visual handicap. May cause opacity in the cornea.

12. Ecological information

Ecotoxicity: Acetone: LD50 (oral, rat): > 5 800 mg/Kg. LC50 (fish, 96 hrs): 7 505 mg/L (L. Idus). EC50 (daphnia, 48 hrs): 12 100 mg/L (D. Magna).

Mobility:-

Persistence and degradability: Acetone is easily degraded.

Bioaccumulative potential: Acetone does not bioaccumulate in the aquatic environment. Acetone is not considered to cause long term adverse effects in the aquatic environment.

Other adverse effects:-

Further information: The ecological information on methacrylates is of limited extent. Only a large spillage of acetone is considered to be harmful to fish and other aquatic organisms. Small spillages and proper handling are not regarded as dangerous. Acetone is regarded as having only low toxic effects on mammals.

13. Disposal considerations

Product: Should be disposed of in accordance with local regulations and national legislation.

Contaminated packaging: Should be disposed of in accordance with local regulations and national legislation.

14. Transport information

Not regulated.

15. Regulatory information

Health, safety and environmental information shown on the label:

· **Symbol:**



· **Categories of danger:** Xi, Irritant.

· **Risk phrases:** R11 Highly flammable.
R36/37/38 Irritating to eyes, respiratory system and skin.

· **Safety phrases:** S9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water and soap.
S33 Take precautionary measures against static discharges.

Further information: Safety Data Sheet according to REACH EC 1907/2006. Classification, labelling and packing of substances and mixtures (CLP) EC 1272/2008.

This product meets the demands of ISO 4049 and MDD 93/42/EEC. The product is CE-marked.

The product contains acetone, which is classified as highly flammable.

16. Other information

R-phrases referred to under heading 2:

R11 Highly flammable.

R36 Irritating to eyes.

R36/37/38 Irritating to eyes, respiratory system and skin.

R43 May cause sensitization by skin contact.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Sources of key data: Swedish National Chemicals Inspectorate, Swedish Work Environment Authority, Eur-Lex European Union law. National Institute for Occupational Safety and Health (NIOSH). Occupational Safety and Health Administration (OSHA).

The safety data sheet is revised in order to: meet the demands of the directive in REACH 1907/2006/EC.

The information in this safety data sheet is based upon our present knowledge. The information is presented with the intention of describing the safest way of handling the product. The safety data sheet is therefore not to be regarded as a complete chemical description of the product. Consequently, the user is responsible for making sure that the product is meant to be used in the actual field of application and that it serves the purpose intended.