SAFETY DATA SHEET

Revision: 03.03.2014 This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

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

1.1. Product identifier

Substance name: GLUE-MD2

Product Type Ethyl Cyanoacrylate

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

Cyanoacrylate instant adhesive

1.3. Details of the supplier of the Safety Data Sheet

Manufacturer/Supplier

Meta Dental Corp

Street address/P.O. Box

7315 88th Street, Glendale, NY 11385

Telephone number (if possible, indicate telefax)

Tel: 1-718-639-7460 / Fax: 1-718-639-7408

E-mail address of competent person responsible for the SDS

mkang@metadental.com

1.4 Emergency telephone number

Opening hours: AM9:00-PM5:00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP] Skin Irrit. 2H315 Causes skin irritation.

Eye irrit.2 H319 Causes serious eye irritation.

SHOT SE 3 H335 May cause respiratory irritation.

2.1.2. Classification according to Directive 67/548/EEC (see SECTION 16 for full text of risk

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

2.1.3 Additional information:

For full text of R- phrases: see SECTION 16.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms

GHS07 GHS08

Signal word: Warning

Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation

Precautionary statements54

P261 Avoid breathing mist/vapours/spray.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove personnel contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards

All chemicals are potentially dangerous. They should only be handled by specially trained

Substance meets the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex PBT: Not applicable. vPvB: Not applicable

SECTION 3: Composition/information on ingredients:

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Ethyl 2-Cyanoacrylate	7085-85-0	EINECS 230-391-5	>86	Xi:R36-37-38 (EU) Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 (CLP)
Poly Methyl Methacrylate	9011-14-7		12-14	
Hydroquinone	123-31-9	EINECS 204-617-8	<0.2	Carc.Cat.3:R40; Muta.Cat.3:R68; Xn:R22; Xi:R41; N:R50; R43 (EU) Acute Tox. 4, H302; Eye Dam. 1, H318; Skin Sens. 1, H317; Muta. 2, H341; Carc. 2, H351; Aquatic Acute 1, H400,M=10(CLP)

Please see section 16 for the full text of any R phrases and H statements referred to in this section

Please refer to section 15 for the any applicable Notas that have been applied to the above components

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures

4.1. Description of first aid measures

Eye contact

Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention. DO NOT force eyelids open.

Skin contact

For skin bonds: Quickly soak in warm water and avoid use of excessive force to free bonded area. If unable to free bonded area, or if lips or mouth are bonded, get medical attention. If irritation persists, get medical attention.

Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment needed Not applicable

SECTION 5: Firefighting measures

5.1 Extinguishing media:

In case of fire: Use a fire fighting agent suitable for flammable liquids or gases such as dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance Condition	Condition
Carbon monoxide. During combustion.	During combustion.
Carbon dioxide. During combustion.	During combustion Oxides
of nitrogen. During combustion.	During combustion.

5.3 Advice for firefighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2 Environmental precautions:

For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water. Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Contain spill. Collect as much of the spilled material as possible using non-sparking tools. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For industrial or professional use only. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Vapours may travel long distances along the ground or floor to an ignition source and flash back.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Store away from heat. Protect from sunlight. Store away from acids. Store away from oxidising agents.

7.3 Specific end use(s):

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredients with limit values that require monitoring at the workplace:

7085-85-0 ethyl 2-cyanoacrylate

WEL (Great Britain) Short-term value: 1.5 mg/m³, 0.3 ppm

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

8.2. Exposure controls

8.2.1. Engineering controls

Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2 Personal protection equipment: Eye/face protection

Wear eye/face protection.

The following eye protection(s) are recommended: Safety glasses with side shields. Indirect vented goggles. Skin/hand protection Wear protective gloves.

Gloves made from the following material(s) are recommended: Fluoroelastomer Polyethylene

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Select one of the following approved respirators based on airborne concentration of contaminants and in accordance with regulations:

Half facepiece or fullface air-purifying respirator with organic vapour cartridges and P2 particulate prefilters.

Half facepiece or fullface air-purifying respirator with organic vapour cartridges and P3 particulate prefilters.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	Clearliquid, with a sharp, pungent odour.
pH	Not applicable.
Boiling point/boiling range	65±1℃ at 6mmHg
Melting point	<-30℃
Flammability (solid, gas)	Flammable Liquid: Category 4.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	> 84 °C [Test Method:Closed Cup]
Autoignition temperature	No data available.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour pressure	<=5.3 Pa [@ 20 °C]
Water solubility	Nil
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	Negligible
Vapour density	4.3
Viscosity	50-150 mPa.s [@ 20 °C]
Density	1.06-1.10 g/ml

9.2 Other information

Volatile organic compounds (VOC)	No data available.
VOC less H2O & exempt solvents	No data available.

SECTION 10: Stability and Reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions – see the remaining headings in this section

10.2 Chemical stability Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerisation may occur. May occur in large quantities only.

10.4. Conditions to avoid Heat.

10.5. Incompatible materials Strong
oxidising agents.
Water
Strong bases.
Amines.
Alcohols.

Material polymerises rapidly by contact with water, alcohol, amines, and alkalis.

10.6. Hazardous decomposition products No
information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision. Bonds eyelids rapidly. Vapours released during curing may cause eye irritation:

Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Dust created by cutting, grinding, sanding, or machining may cause eye irritation:

Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin contact

Bonds skin rapidly. Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system:

Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 3: Harmful to aquatic life.

Chronic aquatic hazard:

GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

No component test data available.

12.2. Persistence and degradability No test data available.

12.3 Bioaccumulative potential No test data available.

12.4 Mobility in soil
Please contact manufacturer for more details
12.5 Results of PBT and vPvB assessment
No information available at this time, contact manufacturer for more details

12.6 Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.
Uncleaned packaging:
Recommendation: Disposal according to official regulations.

SECTION 14 Transport Information95 UN-

Number	
ADR, ADN, IMDG, IATA	Void
UN proper shipping name	Void
ADR, ADN, IMDG, IATA	
Transport hazard class(es)	
ADR, ADN, IMDG, IATA	
Class	Void
Packing group	
ADR, IMDG, IATA	Void
Special precautions for user	Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
Transport/Additional information:
ADR

Remarks:	Not subject to transport regulations.
UN "Model Regulation":	-

SECTION 15: Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture National regulations:
Information about limitation of use: Employment restrictions concerning juveniles must be observed.
Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Relevant phrases
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

R36/37/38 Irritating to eyes, respiratory system and skin.
Department issuing MSDS: Department: Health, Safety and Environment
Contact: Frau Weckemann 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) RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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.