

**EMERGENCY
CONTACT:
CHEMTREC
1-800-424-9300**

**COWSLIPS ADHESIVE - LIQUID
MATERIAL SAFETY DATA SHEET**

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity:

Product Name: COWSLIPS ADHESIVE Liquid Component
(CS110, CS210, CS310, CS340, CS500)

Trade Name: Pleximon 801

Product Use: Adhesive for Cowslips – medical treatment
for lameness in cattle

Manufactured by:

Giltspur Scientific Ltd.
6-8 Avondale Industrial Estate
Ballyclare, Co Antrim
Ireland BT39 9AL1

Distributed in USA by:

Kane Enterprises, Inc.
P.O. Box 500
Brandon, SD 57005
Phone: 1-800-336-8577

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization

Monomer mixture based on methacrylic acid esters (containing
activator)

- Methyl methacrylate 60-100%
- 2-Hydroxyethyl methacrylate 15-40%
- N.N-Dimethyl-p-toluidine 1-5%

Hazardous Ingredients

Methylmethacrylate, concentration	
Concentration	60 to 100%
CAS Number	80-62-6
Hazard Symbols	Xi, F

R-phrases	11, 36/37/38/43
N, N-dimethyl-p-toluidine, concentration	1 to 5%
CAS Number	99-97-8
Hazard Symbols	T
R-phrases	23/24/25

3. HAZARDS IDENTIFICATION

Hazards

Highly flammable

Identification

Harmful by inhalation, contact with skin and if swallowed
Irritating to eyes, respiratory system and skin
May cause sensitization by skin contact

4. FIRST AID MEASURES

General Information

Remove soiled, soaked clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapors.

Inhalation

Remove the casualty into fresh air and keep him/her calm. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Skin

In case of contact with the skin, wash off immediately with soap and water. If skin irritation occurs, seek medical attention.

Eyes

In case of contact with eyes, rinse thoroughly with plenty of water and seek medical advice.

Ingestion

Do not induce vomiting. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with head down. Summon medical assistance immediately. If possible do not leave individual unattended.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Foam
Dry Powder
Carbon dioxide
Water Spray Jet

Unsuitable Extinguishing Media for Safety Reasons

Full water jet

Special Protective Equipment for Fire Fighting

Use self-contained breathing apparatus
Wear full protective suit

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Ensure adequate ventilation
Use personal protective clothing

Environmental Precautions

Do not discharge into drains/surface waters/ground water

Methods for Cleaning Up/Taking Up

Larger quantities – remove mechanically (by pumping)
Smaller quantities and/or residues – absorb with absorbent material e.g. sand or sawdust

7. HANDLING AND STORAGE

Handling/Advice on Safe Handling

Keep containers tightly closed
Ensure the area is well ventilated

Advice on Protection Against Fire and Explosion

Keep away from sources of ignition – NO SMOKING
Take precautionary measures against static discharges
In the event of fire, cool the endangered containers with water

Storage

Requirements for Storage Rooms and Vessels

Keep only original container at a temperature not exceeding 30°C

Further Information on Storage Conditions

Fill the container by approximately 80% only, as oxygen (air) is required for stabilization
Keep out of light

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment

Respiratory Protection

If ventilation insufficient, wear respiratory protection
Short term-filter apparatus, Filter A

Skin Protection

Wear resistant gloves, such as: nitrile, latex. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Body Protection

When handling larger quantities; face mask, rubber boots and rubber apron

General Protection and Hygiene Measures

Do not inhale vapors
Avoid contact with eyes
Store work clothing separately
Remove soiled or soaked clothing immediately
Follow the usual good standards of occupational hygiene

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: Liquid
Color: Colorless
Odor: Odorless

Changes in Physical State

Melting temperature -48 degree C
Initial boiling point approx. 100 deg. C at 1013 Hpa

Flash Point

Method DIN 51755 10 deg. C
(Methyl Methacrylate)

Ignition Temperature

Method DIN 51794 430 deg. C
(Methyl Methacrylate)

Lower Explosion Limit

(Methyl Methacrylate) 2.1% vol

Upper Explosion Limit

(Methyl Methacrylate) 12.5% vol

Vapor Pressure

< 40 hPa at 20 deg. C

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Density

.95 g/cm at 20 deg. C

Relative Vapor Density – Related to Air

>1 at 20 deg. C

Solubility in Water

Approx. 10g/l at 20 deg. C

Solubility/Qualitative

In e.g. esters, ketones and chlorinated hydrocarbons
Readily soluble

pH-value

Not applicable

Viscosity Dynamic

Approx. 2 mPa*s at 23 deg. C
Method Brookfield

Further Information: None

10. STABILITY AND REACTIVITY

Thermal Decomposition

No decomposition when used as directed.

Hazardous Reactions

Polymerization with heat evolution may occur in the presence of radical forming substances (eg peroxides), reducing substances, and/or heavy metal ions

Hazardous Decomposition Products

None when used as prescribed.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity (LD50)

Species Rat > 500 mg/kg

Method OECD 401

Source literature

The data mentioned above refers to the component methyl methacrylate.

Acute Oral Toxicity (LD50)

Species Rat > 996 mg/kg

The data mentioned above refer to the component, N-dimethyl-p-toluidine.

Acute Inhalation Toxicity (LD50)

7093 ppm

Length of exposure 4 h

Species rat

Source literature

The data mentioned above refer to the component methyl methacrylate.

Acute Dermal Toxicity (LD50)

> 5000 mg/kg

Species rabbit

Source literature

The data mentioned above refer to the component methyl methacrylate.

Skin Irritation

Non-irritating

Length of exposure

Species rabbit

Method Occlusive, FDA Draize

The data mentioned above refer to the component methyl methacrylate.

Irritant Effect on the Eyes

Non-irritating

Species rabbit eye

Method Draize

The data mentioned above refer to the component methyl methacrylate.

Sensitization

In sensitization tests on guinea pigs with and without adjuvant, both positive and negative results were found.

Source literature

In humans, various types of allergic reactions have been observed. (Symptoms: headache, eye irritations, skin affections)

Source literature

The data mentioned above refer to the component methyl methacrylate.

Mutagenicity

Non-mutagenic

Dos/concentration 10000 up/plate

Metabolic activation

+/-

Species/test system

Salmonella typhimurium

Method Ames-test

Source literature

Mutagenic

Metabolic activation

+/-

Species/test system

Mouse lymphoma L 5178 Y TK +/- cells

Method Mouse lymphoma test

Source literature slight increase in SCE's

Metabolic activation

+/-

Species/test system
CHO cells
Method SCE test
Source literature

No increase in the SCE rate up to cytotoxic concentrations
Species/test system
Human Lymphocytes

Method SCE test
Source literature

No increase in the number of micro nuclei
Application method oral
Dos/concentration 4520 mg/kg
Application interval 1 dose
Species/test system
Mouse
Method Micro-nucleus test/OECD 474
Source literature

No increase in the number of micro nuclei
Application method oral
Dos/concentration 1130 mg/kg
Application interval 4 doses
Species/test system
Mouse
Method micro-nucleus test/OECD 474
Source literature

Non-mutagenic
Application method inhalation
Application interval 6 h/d
Application period 5 d
Species/test system

CD-1 mouse (male)
Method Dominant lethal test

Source Literature

The data mentioned above refer to the component methyl methacrylate.

Teratogenicity

No indication of toxic effects were observed in reproduction studies in animals.

Application method inhalation

Dosage 2028 ppm

Application period 6 to 15 d qest

Species rat

Method OECD 414

Source literature

The data mentioned above refer to the component methyl methacrylate.

Carcinogenicity

Non-carcinogenic in inhalation and feeding studies carried out on rats, mice and dogs.

Source literature

The data mentioned above refer to the component methyl methacrylate.

Chronic Toxicity

Application method inhalation

Dosage 250 to 1000 ppm

Application interval 6 h/d, 5 d/w

Application period 2 a

Species rat

Source literature

Findings: Damage to the mucous membranes in nose, throat and lungs. Degeneration of the olfactory epithelium.

The data mentioned above refer to the component methyl methacrylate.

Chronic Toxicity

Application method inhalation

Dosage 500 to 1000 ppm

Application interval 6 h/d, 5 d/w

Application period 2 a

Species mouse

Source literature

Findings: Damage to the mucous membranes in nose, throat and lungs. Degeneration of the olfactory epithelium.

The data mentioned above refer to the component methyl methacrylate.

Further Information on Toxicology

Methaemoglobinaemia possible after skin contact.

Symptoms of poisoning may not occur for many hours.

Liver damage is possible.

The data mentioned above refer to the component.

N, N-dimethyl-p-toluidine

There are no toxicological data available for the product as such.

Carefully avoid contact with skin and eyes, as well as inhalation of product vapors.

12. ECOLOGICAL INFORMATION

Information on elimination (persistence and degradability)

Biodegradability

Duration of test 30.7%

Method OECD 301 C 28 d

> 95%

Method test according to Zahn/Wellens

Source literature

This product is not readily biodegradable to OECD criteria but is inherently biodegradable.

Exotoxicological Effect

Fish toxicity (LC50)

Length of exposure >79 mg/l

Species oncorhynchus mykiss rainbow trout

Method OECD 203/ISO 7346/EEC 84/449/V C1

Source literature

Fish toxicity (NOEC) 40 mg/l

Length of exposure 96 h

Species oncorhynchus mykiss rainbow trout

Method OECD 203/ISO 7346/EEC 84/449/V C1

Source literature

Daphnia toxicity (EC50)

Length of exposure 69 mg/l

Species daphnia magna 48 h

Method OECD 202/ISO 6431/EEC 84/449/V C21

Source literature

Algae toxicity (EC3)

Length of exposure 37 mg/l

Species scendesmus quadricauda 8 d

Method DIM 38412 part 9

Source literature

Algae toxicity (EC50)

Length of exposure 170 mg/l

Species scendesmus quadricauda 4 d

Method OECD 201/ISO 8692/EEC 88/301/V C

Source literature

Bacterial toxicity

Species pseudomonas putida 100 mg/l

Further ecological information

Further information on ecology

The data mentioned above refer to the component methyl methacrylate. Do not allow to enter soil, waterways or wastewater.

13. DISPOSAL CONSIDERATIONS

Product

Waste is hazardous and therefore particularly to be kept under surveillance. It must be disposed of in accordance with the regulations after consultation of the competent local authorities and the disposal company in a suitable and licensed facility.

14. TRANSPORT INFORMATION

DOT INFORMATION - 49 CFR 172.101

DOT DESCRIPTION: Consumer commodity - ORM-D

15. REGULATORY INFORMATION

Hazardous Component(s) for Labeling

Contains Methyl methacrylate
N, N-dimethyl-para-toluidine

Hazard Symbols

Xi irritant
F Highly flammable

R-phrases

11 Highly flammable
36/37/38 Irritating to eyes, respiratory system and skin
43 May cause sensitization by skin contact

S-phrases

9 Keep container in a well-ventilated place
16 Keep away from sources of ignition - No smoking
29 Do not empty into drains
33 Take precautionary measures against static discharges

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16. OTHER INFORMATION

The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerize with heat evolution.

This data is based on our present knowledge of the product. However, no warranty or guaranty, express or implied, is made regarding the information or performance of the product. Since the conditions of use are beyond our control, the user assumes all risks associated with its use. Kane Enterprises, Inc. assumes no liability for incidental, consequential or direct damages of any kind, no matter what the cause.

**POWDER COMPONENT
COWSLIPS®
MATERIAL SAFETY DATA SHEET
(VERSION 1.898)**

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: COWSLIPS® (CS110, CS210, CS310,
CS340, CS500)

Trade Name: Plexigum M 820

NFPA RATINGS FOR USA (scale 0 – 4)

Health – 1

Flammability – 1

Reactivity – 0

MANUFACTURED BY:

Rohm gMBh
Chemische Fabrik
d-64275 Darmstadt

DISTRIBUTED IN USA BY:

Kane Enterprises, Inc.
P. O. Box 500
Brandon, SD 57005
Phone: 1-800-336-8577

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization

Acrylic polymer on the basis of methyl methacrylate

Hazardous ingredients

None known

3. HAZARDS IDENTIFICATION

May cause sensitization by skin contact

4. FIRST AID MEASURES

EYES

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek medical attention if symptoms persist.

SKIN

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Water spray jet
Foam
Dry powder
Carbon dioxide

Unsuitable extinguishing media for safety reasons

Full water jet

6. ACCIDENTAL RELEASE MEASURES

Methods of cleaning/absorption

Take up mechanically
Dispose of according to regulations

7. HANDLING AND STORAGE

Handling

Avoid dust formation
Guarantee suitable sucking off during dust development

Fire and explosion protection

At higher quantities take measures against electrostatic dischargers. In the event of a fire, the endangered product should be cooled with water.

Storage

Requirements for storage areas and containers

Storage dry
Containers should be kept closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components or products of decomposition according to point 10, with limit values related to the place of work which requires monitoring.

TLV (short term) – value for

CAS Number	80-62-6
Methyl Methacrylate	510 mg/m; 125 m/m; 1989

TLV (long term) – value for

CAS Number	80-62-6
Methyl Methacrylate	410 mg/m; 100 ml/m ⁵ ; 1989

Annotations (Notes) Observations

Sensitizing
A hazard of fruit damage does not exist during compliance with the MAK worth.

MAK (DFG) for

CAS Number	94-36-0
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Dibenzoylperoxide 5 mg/m; 100 ml/m5

General Protective Equipment

General protective measures: Do not inhale dust

Hygiene measures: Follow the usual good standards of occupational hygiene.

Respiratory protection: filtering half mask during dust formation above the MAK worth

Hand protection: Protective gloves

Eye protection: Protective goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form:	Powder
Odor:	Very weak odor
Color:	Grey

Changes in Physical State

Softening point:

Flash point

(Method ASTM-D 1929-68): >250 deg. C

Ignition temperature

(Method ASTM-D 1929-68): >400 deg. C

Lower explosion limit: No information

Upper explosion limit: No information

Melting temperature: Not determined

Density: Not applicable

Bulk density: Approx. 500 to 550 kg/m

Water solubility: Insoluble

Solubility/qualitative: Not determined

pH-value: Not applicable

Viscosity dynamic: Not applicable

Further information

Dust explosions are generally to be expected with dust-forming organic products.

10. STABILITY AND REACTIVITY

Hazardous reactions

No hazardous reactions known

Hazardous decomposition products

No hazardous products during normal appropriation

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

There are no toxicological data available for this product.

Sensitization

Allergic reactions on humans were recorded.
That information applies to the component Dibenzoyl peroxide.

Carcinogenicity

The substance shows tumor-promoting properties in animal tests.
The data refers to the component Dibenzoyl peroxide.

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Further information on toxicology

The fine particles contained in the product may cause mechanical irritation of the skin, eyes and mucous membranes.

12. ECOLOGICAL INFORMATION

Further ecological information

Do not allow to enter soil, waterways or wastewater.

13. NOTES ON DISPOSAL

Product

Can be incinerated together with household refuse in accordance with the regulations and after consultation with the disposal agency and the relevant authorities.

Transport Information

DOT INFORMATION – 49 CFR 172.01

DOT DESCRIPTION:

CONSUMER COMMODITY – ORM-D

Regulatory Information

Hazardous component(s) for labeling

Contains dibenzoyl peroxide

Hazard symbols

Xi irritant

R-Phrases

43 May cause sensitization by skin contact

S-Phrases

36/37 Protective gloves and protective clothing

Danger Category: Self classification

Rubbish Type: Other hardened synthetic waste.

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14. OTHER INFORMATION FOR SILICA QUARTZ POWDER

No other information

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