

SAFETY DATA SHEET
(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

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

1.1. Product identifier

Product name : CHRYSO® ADM 834
Product code : C0394.

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

Cement additive

1.3. Details of the supplier of the safety data sheet

Registered company name : CHRYSO SAS.
Address : 7 rue de l'Europe.45300.SERMAISES DU LOIRET .France.
Telephone : 02 38 34 58 00. Fax : 02 38 39 01 72.
fds.chryso@chryso.com
www.chryso.com

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Specific target organ toxicity (repeated exposure), Category 2 (STOT RE 2, H373).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Acute oral toxicity: harmful (Xn, R 22).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS08

Signal Word :

WARNING

Product identifiers :

EC 203-473-3 ETHANE-1,2-DIOL
EC 203-872-2 2,2'-OXYBISETHANOL

Hazard statements :

H373 May cause damage to organs through prolonged or repeated exposure (if swallowed, in contact with skin).

Precautionary statements - Prevention :

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Precautionary statements - Response :

P314 Get medical advice/attention if you feel unwell.

2.3. Other hazards

The mixture does not contain any substances classified as 'Substances of Very High Concern' (SVHC) by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

CHRYSO® ADM 834 - C0394

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	67/548/EEC	Note	%
CAS: 107-21-1 EC: 203-473-3 ETHANE-1,2-DIOL	GHS07, GHS08 Wng Acute Tox. 4, H302 STOT RE 2, H373	Xn Xn;R22	[1]	10 <= x % < 25
CAS: 111-46-6 EC: 203-872-2 2,2'-OXYBISETHANOL	GHS07, GHS08 Wng Acute Tox. 4, H302 STOT RE 2, H373	Xn Xn;R22	[1]	10 <= x % < 25

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of swallowing :

Seek medical attention, showing the label.

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

Non-flammable.

5.1. Extinguishing media

No data available.

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid exposure - obtain special instructions before use.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2009/161/EU, 2006/15/EC, 2000/39/EC, 98/24/EC)

CAS	VME-mg/m3	VME-ppm	VLE-mg/m3	VLE-ppm	Notes :
107-21-1	52	20	104	40	Peau

- France (INRS - ED984 :2008) :

CAS	VME-ppm	VME-mg/m3	VLE-ppm	VLE-mg/m3	Notes :	TMP No :
107-21-1	20	52	40	104	*	84 -

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
107-21-1	10 mg/m3	-	-	-	-
111-46-6	23 ppm	-	-	-	-

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

2,2'-OXYBISETHANOL (CAS: 111-46-6)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term local effects.
106 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term local effects.
60 mg of substance/m3

Final use:

Exposure method:
Potential health effects:
DNEL :

Man exposed via the environment.

Dermal contact.
Long term systemic effects.
53 mg/kg body weight/day

Exposure method:
Potential health effects:

Inhalation.
Long term local effects.

CHRYSO® ADM 834 - C0394

DNEL : 12 mg of substance/m3

ETHANE-1,2-DIOL (CAS: 107-21-1)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Long term systemic effects.
106 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
35 mg of substance/m3

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Dermal contact.
Long term systemic effects.
53 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
7 mg of substance/m3

Predicted no effect concentration (PNEC):

ETHANE-1,2-DIOL (CAS: 107-21-1)

Environmental compartment:
PNEC : Fresh water.
10 mg/l

Environmental compartment:
PNEC : Sea water.
1 mg/l

Environmental compartment:
PNEC : Intermittent waste water.
10 mg/l

Environmental compartment:
PNEC : Fresh water sediment.
20.9 mg/kg

Environmental compartment:
PNEC : Waste water treatment plant.
199.5 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

CHRYSO® ADM 834 - C0394

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Natural latex
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Fluid liquid.
Odour	Characteristic
Colour	Brown

Important health, safety and environmental information

pH :	6.50 . Neutral.
Boiling point/boiling range :	Not relevant.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	> 1
Water solubility :	Soluble.
Melting point/melting range :	Not relevant.
Self-ignition temperature :	Not relevant.
Decomposition point/decomposition range :	Not relevant.

9.2. Other information

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid :

- frost

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

May cause severe damage to organs in the event of repeated or prolonged exposure.

11.1.1. Substances

Acute toxicity :

2,2'-OXYBISETHANOL (CAS: 111-46-6)

Oral route : LD50 = 1120 mg/kg
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

ETHANE-1,2-DIOL (CAS: 107-21-1)

Oral route : LD50 = 7712 mg/kg
Species : Rat

Dermal route : LD50 > 3500 mg/kg
Species : Mouse

Inhalation route : LC50 2.5

Specific target organ systemic toxicity - repeated exposure :

2,2'-OXYBISETHANOL (CAS: 111-46-6)

Oral route : C = 40000 mg/kg bodyweight/jour
Species : Rat
Duration of exposure : 28 days
OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Dermal route : C = 8000 mg/kg bodyweight/jour
Species : Dog
Duration of exposure : 28 days
OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

ETHANE-1,2-DIOL (CAS: 107-21-1)

Oral route : $150 < C \leq 300$ mg/kg body weight/day
Duration of exposure : 28 days

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

ETHANE-1,2-DIOL (CAS: 107-21-1)

Fish toxicity : LC50 = 72860 mg/l
Species : Pimephales promelas
Duration of exposure : 96 h

NOEC = 15380 mg/l
Species : Pimephales promelas
Duration of exposure : 35 days

Crustacean toxicity : EC50 > 100 mg/l
Species : Daphnia magna
Duration of exposure : 48 h
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

NOEC = 8590 mg/l

CHRYSO® ADM 834 - C0394

Species : Ceriodaphnia dubia

Algae toxicity :

ECr50 = 10000 mg/l
Species : Selenastrum capricornutum
Duration of exposure : 96 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

ETHANE-1,2-DIOL (CAS: 107-21-1)

Biodegradability :

no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

SECTION 15 : REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- Regulation EC 1272/2008 modified by regulation EC 618/2012
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.

- Container information:

No data available.

- Particular provisions :

No data available.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Hazard symbols :



Harmful

Contains :

EC 203-872-2 2,2'-OXYBISETHANOL
EC 203-473-3 ETHANE-1,2-DIOL

Risk phrase :

R 22 Harmful if swallowed.

Safety phrase :

S 60 This material and its container must be disposed of as hazardous waste.

Title for H, EUH and R indications mentioned in section 3 :

H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure .
R 22 Harmful if swallowed.

Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS08 : Health hazard