

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@Xel 650

Product code : PF001144A.

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

Concrete and mortar admixture.

1.3. Details of the supplier of the safety data sheet

Registered company name : CHRYSO SOUTHERN AFRICA (PTY).

Address : 26 Malcolm Moodie Crescent, Jet Park Ext.30, 1469..Boksburg.South Africa.

Telephone : 27 11 395 97 00. Fax : 27 11 397 66 44.

fds.chryso@chryso.com

www.chryso.com

1.4. Emergency telephone number : .

Association/Organisation : .

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Acute oral toxicity, Category 4 (Acute Tox. 4, H302).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

Skin sensitisation, Category 1 (Skin Sens. 1, H317).

Germ cell mutagenicity, Category 2 (Muta. 2, H341).

Carcinogenicity, Category 1B (Carc. 1B, H350).

Contact with acids liberates very toxic gas (EUH032).

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.

Oxidising (O, R 8).

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

Serious eye damage (Xi, R 41).

Skin sensitisation (Xi, R 43).

Contact with acids liberates very toxic gas (R 32).

Category 2 carcinogen (T, R 45 Carc. Cat. 2).

Category 3 mutagen (Xn, R 68 Muta. Cat. 3).

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 :



GHS07



GHS05



GHS08

Signal Word :

DANGER

Product identifiers :

EC 233-332-1

CALCIUM NITRATE

EC 208-754-4

SODIUM THIOCYANATE

605-001-00-5

FORMALDEHYDE

EC 200-659-6

METHANOL

Additional labeling :

For professional use only.

CHRYSO®Xel 650 - PF001144A**Hazard statements :**

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H341	Suspected of causing genetic defects .
H350	May cause cancer .
EUH032	Contact with acids liberates very toxic gas.

Precautionary statements - Prevention :

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing vapours/spray.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - Response :

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published 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.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures****Composition :**

Identification	(EC) 1272/2008	67/548/EEC	Note	%
CAS: 10124-37-5 EC: 233-332-1 CALCIUM NITRATE	GHS07, GHS05, GHS03 Dgr Ox. Sol. 3, H272 Acute Tox. 4, H302 Eye Dam. 1, H318	Xn,O Xn;R22 Xi;R41 O;R8		50 <= x % < 100
CAS: 540-72-7 EC: 208-754-4 REACH: 01-2119543700-47 SODIUM THIOCYANATE	GHS07 Wng Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Irrit. 2, H319 Acute Tox. 4, H332 Aquatic Chronic 3, H412 EUH:032	Xn Xn;R20/21/22 Xi;R36 R52/53-R32		2.5 <= x % < 10
INDEX: 605-001-00-5 CAS: 50-00-0 EC: 200-001-8 FORMALDEHYDE	GHS06, GHS05, GHS08 Dgr Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 Skin Sens. 1, H317 Acute Tox. 3, H331 STOT SE 3, H335 Muta. 2, H341 Carc. 1B, H350	T Carc. Cat. 2;R45 Muta. Cat. 3;R68 T;R23/24/25 C;R34 Xi;R43	B D [1] [2]	0 <= x % < 2.5
CAS: 67-56-1 EC: 200-659-6 METHANOL	GHS06, GHS08, GHS02 Dgr Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	T,F T;R23/24/25-R39/23/24/25 F;R11	[1]	0 <= x % < 1

Information on ingredients :

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

[2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

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

CHRYSO®Xel 650 - PF001144A**In the event of splashes or contact with eyes :**

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water, administer activated medical charcoal and consult a doctor.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show 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 non first aid worker

Avoid any contact with the skin and eyes.

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.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

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 eye contact with this mixture at all times.

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.

Storage

Keep away from food and drink, including those for animals.

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
67-56-1	260	200	-	-	Peau

- France (INRS - ED984 :2008) :

CAS	VME-ppm	VME-mg/m3	VLE-ppm	VLE-mg/m3	Notes	TMP No :
50-00-0	0.5	-	1	-	C3	43
67-56-1	200	260	1000	1300	(12)	84

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

CAS	TWA	STEL	Ceiling	Definition	Criteria
50-00-0	2 ppm	2 ppm	-	-	-
67-56-1	200 ppm	250 ppm	-	-	-

- South Africa / DOL CL (Department of Labour, Control limits, 1995) :

CAS	TWA	STEL	Ceiling	Definition	Criteria
50-00-0	2 ppm	2 ppm	-	-	-

- South Africa / DOL RL (Department of Labour, Recommended limits, 1995) :

CAS	TWA	STEL	Ceiling	Definition	Criteria
67-56-1	200 ppm	250 ppm	-	-	-

Predicted no effect concentration (PNEC):

CALCIUM NITRATE (CAS: 10124-37-5)

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

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

Environmental compartment:
PNEC : Intermittent waste water.
4.5 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.

CHRYSO®Xel 650 - PF001144A**- Eye / face protection**

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- 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.

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

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

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	Colorless to straw

Important health, safety and environmental information

pH :	Not stated.
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**

This mixture reacts with acids, releasing very toxic gases in dangerous quantities.

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

Keep away from :

- acids

Releases a highly toxic gas when in contact with acids.

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

Harmful if swallowed.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

May cause an allergic reaction by skin contact.

Presumed human carcinogen.

Cause for concern owing to the possibility that it may induce heritable mutations in the germ cells of humans.

11.1.1. Substances

Acute toxicity :

SODIUM THIOCYANATE (CAS: 540-72-7)

Oral route :

LD₅₀ = 764 mg/kg
Species : Rat

CALCIUM NITRATE (CAS: 10124-37-5)

Oral route :

LD₅₀ = 1000 mg/kg
Species : Rat

Skin corrosion/skin irritation :

CALCIUM NITRATE (CAS: 10124-37-5)

Corrosivity :

No observed effect.

11.1.2. Mixture

No toxicological data available for the mixture.

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 50-00-0 : IARC Group 1 : The agent is carcinogenic to humans.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

SODIUM THIOCYANATE (CAS: 540-72-7)

Fish toxicity :

LC₅₀ = 1.53 mg/l
Species : Pimephales promelas
Duration of exposure : 96 h

Crustacean toxicity :

EC₅₀ = 1.33 mg/l
Species : Daphnia magna
Duration of exposure : 48 h
OECD Guideline 211 (Daphnia magna Reproduction Test)

METHANOL (CAS: 67-56-1)

Fish toxicity :

LC₅₀ = 15400 mg/l
Species : Lepomis macrochirus
Duration of exposure : 96 h

Crustacean toxicity :

EC₅₀ > 1000 mg/l
Species : Daphnia magna

Duration of exposure : 48 h

Algae toxicity :

ECr50 = 220000 mg/l

Duration of exposure : 96 h

CALCIUM NITRATE (CAS: 10124-37-5)

Fish toxicity :

LC50 = 1378 mg/l

Species : *Poecilia reticulata*

Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 490 mg/l

Species : *Daphnia magna*

Duration of exposure : 48 h

Algae toxicity :

Duration of exposure : 72 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability**12.2.1. Substances**

METHANOL (CAS: 67-56-1)

Biodegradability :

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

SODIUM THIOCYANATE (CAS: 540-72-7)

Biodegradability :

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

CALCIUM NITRATE (CAS: 10124-37-5)

Biodegradability :

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

12.3. Bioaccumulative potential**12.3.1. Substances**

SODIUM THIOCYANATE (CAS: 540-72-7)

Octanol/water partition coefficient :

log K_{ow} ≥ 4.

Bioaccumulation :

BCF ≥ 500.

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
- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.

- Container information:

No data available.

Usage restrictions apply to the product : See annex XVII of EC regulation No. 1907/2006.

For professional users only.

- 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 :



Toxic



Oxidizing

Contains :

EC 200-659-6
605-001-00-5
EC 208-754-4
EC 233-332-1

METHANOL
FORMALDEHYDE
SODIUM THIOCYANATE
CALCIUM NITRATE

Risk phrase :

- | | |
|------|---|
| R 43 | May cause sensitisation by skin contact. |
| R 22 | Harmful if swallowed. |
| R 32 | Contact with acids liberates very toxic gas. |
| R 41 | Risk of serious damage to eyes. |
| R 45 | May cause cancer. |
| R 68 | Possible risk of irreversible effects. |
| R 8 | Contact with combustible material may cause fire. |
| | For professional use only. |

Safety phrase :

- | | |
|------------|---|
| S 26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S 36/37/39 | Wear suitable protective clothing, gloves and eye/face protection. |
| S 45 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
| S 53 | Avoid exposure - obtain special instructions before use. |
| S 38 | In case of insufficient ventilation, wear suitable respiratory equipment. |
| S 60 | This material and its container must be disposed of as hazardous waste. |
| S 17 | Keep away from combustible material. |

Product submitted to restrictions on the marketing and use: see Regulation (EC) No 1907/2006.

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

H225	Highly flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects .
H350	May cause cancer .
H370	Causes damage to organs .
H412	Harmful to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.
R 11	Highly flammable.
R 20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R 22	Harmful if swallowed.
R 23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R 32	Contact with acids liberates very toxic gas.
R 34	Causes burns.
R 36	Irritating to eyes.
R 39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R 41	Risk of serious damage to eyes.
R 43	May cause sensitisation by skin contact.
R 45.C2	May cause cancer.
R 52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 68	Possible risk of irreversible effects.
R 8	Contact with combustible material may cause fire.

Abbreviations :

PNEC : Predicted No-Effect Concentration

CMR: Carcinogenic, mutagenic or reprotoxic.

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).

GHS05 : Corrosion

GHS07 : Exclamation mark

GHS08 : Health hazard