MATERIAL 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®Delta G9436

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 INDIA PRIVATE LTD..

Address : JL.No.93 • Mouza – Jarura • Delhi Road , Sugandha Panchayat , Polba • West bengal • India

Tele-fax : +91 -033 8697975695/96

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

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

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.

Skin sensitisation (Xi, R 43).

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 :

GHS07

Signal Word :

WARNING

Product identifiers :

CAS 55965-84-9 **MIXTURE OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2HISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)**

Hazard statements :

H317	**May cause an allergic skin reaction.**

Precautionary statements - Prevention :

P261	**Avoid breathing dust/fume/gas/mist/vapours/spray.**
P272	**Contaminated work clothing should not be allowed out of the workplace.**
P280	**Wear protective gloves/protective clothing/eye protection/face protection.**

Precautionary statements - Response :

P302 + P352	**IF ON SKIN: Wash with plenty of soap and water.**
P321	**Specific treatment (see ... on this label).**
P333 + P313	**If skin irritation or rash occurs: Get medical advice/attention.**
P363	**Wash contaminated clothing before reuse.**

Precautionary statements - Disposal :

P501	**Dispose of contents/container to ...**

The mixture does not contain any substances classified as 'Substances of Very High Concern' (SVHC) by the European Chemical s 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

3.1. Substances

No substances fulfil the criteria set forth in annexe II section A of the REACH regulation (EC) n° 1907/2006.

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	67/548/EEC	Note	%
INDEX: S000001 CAS: 112-18-5 EC: 203-943-8 DODECYLDIMETHYLAMINE	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 M Acute = 10	C,N C;R34 Xn;R2 2 N;R50		0 <= x % < 2.5
INDEX: S000736 CAS: 1120-24-7 EC: 214-302-7 DECYLDIMÉTHYLAMINE	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 M Acute = 10	C,N C;R34 Xn;R2 2 N;R50		0 <= x % < 2.5
INDEX: 613_167_00_5 CAS: 55965-84-9 MIXTURE OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3- ONE [EC NO. 247-500-7] AND 2-METHYL-2HISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	GHS06, GHS05, GHS09 Dgr Acute Tox. 3, H331 Acute Tox. 3, H311 Acute Tox. 3, H301 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1	T,N T;R23/24/25 C;R34 Xi;R43 N;R50/53		0 <= x % < 2.5

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 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 and consult a doctor.

Seek medical attention immediately, 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 non fire-fighters

Avoid any contact with the skin and eyes.

For fire-fighters

Fire-fighters 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

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.

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.

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

No data available.

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

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.

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	Colourless

Important health, safety and environmental information

pH :	6.0 to 8.0
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 an allergic reaction by skin contact.

11.1.1. Substances

Acute toxicity :

DECYLDIMÉTHYLAMINE (CAS: 1120-24-7)

Oral route :	DL50 = 1100 mg/kg Species : Rat
Dermal route :	DL50 = 3000 mg/kg Species : Rabbit

DODECYLDIMETHYLAMINE (CAS: 112-18-5)

Oral route :	DL50 = 1220 mg/kg Species : Rat OECD Guideline 401 (Acute Oral Toxicity)

Skin corrosion/skin irritation :

DECYLDIMÉTHYLAMINE (CAS: 1120-24-7)

Corrosivity :	Causes severe skin burns. Species : Rabbit OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious damage to eyes/eye irritation :

DODECYLDIMETHYLAMINE (CAS: 112-18-5)

Corneal haze :	Average score = 0 Species : Rabbit OECD Guideline 437 (Bovine Corneal Opacity and Permeability Test Method for Identifying Ocular Corrosives and Severe Irritants)
Iritis :	Average score = 1

Germ cell mutagenicity :

DODECYLDIMETHYLAMINE (CAS: 112-18-5)

	No mutagenic effect.
Mutagenesis (in vivo) :	Negative. OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Carcinogenicity :

DODECYLDIMETHYLAMINE (CAS: 112-18-5)

Carcinogenicity Test :	Negative. No carcinogenic effect. OECD Guideline 451 (Carcinogenicity Studies)

Reproductive toxicant :
DODECYLDIMETHYLAMINE (CAS: 112-18-5) No toxic effect for reproduction
OECD Guideline 414 (Prenatal Developmental Toxicity Study)

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

DECYLDIMÉTHYLAMINE (CAS: 1120-24-7)

Fish toxicity :	**LC50 = 1.8 mg/l** **Species : Oncorhynchus mykiss** **Duration of exposure : 96 h** **OECD Guideline 203 (Fish, Acute Toxicity Test)**
Crustacean toxicity :	**EC50 = 0.93 mg/l** **Factor M = 1** **Species : Daphnia magna** **Duration of exposure : 48 h**
Algae toxicity :	**ECr50 = 0.046 mg/l** **Factor M = 10** **Species : Desmodesmus subspicatus** **Duration of exposure : 72 h** **OECD Guideline 201 (Alga, Growth Inhibition Test)**

DODECYLDIMETHYLAMINE (CAS: 112-18-5)

Fish toxicity :	**LC50 = 0.57 mg/l** **Factor M = 1** **Species : Oncorhynchus mykiss** **Duration of exposure : 96 h** **OECD Guideline 203 (Fish, Acute Toxicity Test)**
Crustacean toxicity :	**EC50 = 0.83 mg/l** **Factor M = 1** **Species : Daphnia magna** **Duration of exposure : 48 h** **OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)**
Algae toxicity :	**ECr50 = 0.014 mg/l** **Factor M = 10** **Species : Scenedesmus subspicatus** **Duration of exposure : 72 h** **OECD Guideline 201 (Alga, Growth Inhibition Test)**

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

DECYLDIMÉTHYLAMINE (CAS: 1120-24-7)

Biodegradability :	**Fast degrading.**

DODECYLDIMETHYLAMINE (CAS: 112-18-5)

Biodegradability :	**Fast degrading.**

12.3. Bio accumulative 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

- 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 :

Irritant

Contains :

CAS 55965-84-9	MIXTURE OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] AND 2-METHYL-2HISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)

Risk phrase :

R 43	May cause sensitisation by skin contact.

Safety phrase :

S 24	Avoid contact with skin.
S 37	Wear suitable gloves.

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

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
R 22	Harmful if swallowed.
R 23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R 34	Causes burns.
R 43	May cause sensitisation by skin contact.
R 50	Very toxic to aquatic organisms.
R 50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Abbreviations :

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 : Wassergefahrdungsklasse (Water Hazard Class).
GHS07 : Exclamation mark