SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

1.1. Product identifier

Product name : UV VY. M ORANGE, ENCRE UVIPRIM VY

Product code : 38D0106.

This MSDS is valid for all packaging of this product.
UFI : N4K7-F0XA-C00P-Y01C

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

INK

1.3. Details of the supplier of the safety data sheet

Registered company name : TIFLEX.

Address : CS 30200.01450.PONCIN.FRANCE.

Telephone : +33 (0) 4.74.37.33.33. Fax : +33 (0) 4.74.37.33.45.

qse@tiflex.fr

www.tiflex.com

1.4. Emergency telephone number : +33 (0) 1.45.42.59.59.

Association/Organisation : I.N.R.S..

Other emergency numbers

Swiss emergency telephone number: 145 (Swiss Toxicological Information Centre)

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Eye irritation, Category 2 (Eye Irrit. 2, H319).

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

Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).

Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

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

2.2. Label elements

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

Hazard pictograms :

GHS09

GHS07

Signal Word :

WARNING

Product identifiers :

EC 235-921-9	HEXAMETHYLENE DIACRYLATE
EC 218-463-4	DODECYL ACRYLATE
EC 282-810-6	ETHYL PHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINATE
CAS 52408-84-1	GLYCEROL, PROPOXYLATED, ESTERS WITH ACRYLIC ACID
EC 500-130-2	4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, ESTERS WITH ACRYLIC ACID

Hazard statements :

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection.

Precautionary statements - Response :

P302 + P352	IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: 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 fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances> = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

| >SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

|> Composition :

Identification	Classification (EC) 1272/2008	Note	%
CAS: 13048-33-4 EC: 235-921-9 REACH: 01-2119484737-22-XXXX HEXAMETHYLENE DIACRYLATE	GHS07, GHS09 Wng Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 2, H411 Aquatic Acute 1, H400 M Acute = 1		25 <= x % < 50
POLYURETHANE RESIN	GHS07 Wng Eye Irrit. 2, H319		10 <= x % < 25
CAS: 7631-86-9 EC: 231-545-4 REACH: 01-2119379499-16-XXXX SILICON DIOXIDE		[1]	10 <= x % < 25
CAS: 2156-97-0 EC: 218-463-4 REACH: DODECYL ACRYLATE	GHS07, GHS09 Wng Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411		2.5 <= x % < 10
CAS: 7473-98-5 EC: 231-272-0 REACH: 01-2119472306-39-XXXX 2-HYDROXY-2-METHYLPROPIOPHENONE	GHS07 Wng Acute Tox. 4, H302 Aquatic Chronic 3, H412		2.5 <= x % < 10
CAS: 84434-11-7 EC: 282-810-6 REACH: 01-2119987994-10-XXXX ETHYL PHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINATE	GHS09, GHS07 Wng Skin Sens. 1, H317 Aquatic Chronic 2, H411		1 <= x % < 2.5

CAS: 5495-84-1 EC: 226-827-9 REACH: 01-2120769513-49-XXXX 2-ISOPROPYL-9H-THIOXANTHEN-9-ONE	GHS09, GHS08 Wng Repr. 2, H361f Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1	A B C E [2]	1 <= x % < 2.5
CAS: 52408-84-1 REACH: 01-2119487948-12-XXXX GLYCEROL, PROPOXYLATED, ESTERS WITH ACRYLIC ACID	GHS07 Wng Skin Sens. 1, H317 Eye Irrit. 2, H319		0.1 <= x % < 1
CAS: 55818-57-0 EC: 500-130-2 REACH: 01-2119490020-53-XXXX 4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, ESTERS WITH ACRYLIC ACID	GHS07 Wng Skin Sens. 1, H317 Aquatic Chronic 4, H413		0.1 <= x % < 1

|> Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 2156-97-0 EC: 218-463-4 REACH: DODECYL ACRYLATE		dermal: ATE = 5000 mg/kg BW oral: ATE = 5570 mg/kg BW

|> Information on ingredients :

(Full text of H-phrases: see section 16)

[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

In the event of splashes or contact with eyes :

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

If there is any redness, pain or visual impairment, consult an ophthalmologist.

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 aera 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.

Keep the person exposed at rest. Do not force vomiting.

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

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO2)

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

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

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.

Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention :

Handle in well-ventilated areas.

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 skin and eye contact with this mixture.

Packages which have been opened must be reclosed carefully and stored in an upright position.

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 the container tightly closed in a dry, well-ventilated place.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

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 :

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

CAS	VME :	VME :	Excess	Notes
7631-86-9		4E mg/m³		

- Switzerland (Suva 2021) :

CAS	VME	VLE	Valeur plafond	Notations
7631-86-9	4 ppm			

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

4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, ESTERS WITH ACRYLIC ACID (CAS: 55818-57-0)

|> Final use: **Workers.**

Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	17.5 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	122.5 mg of substance/m3

GLYCEROL, PROPOXYLATED, ESTERS WITH ACRYLIC ACID (CAS: 52408-84-1)

|> Final use: **Workers.**

Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	2.1 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	7.4 mg of substance/m3

2-ISOPROPYL-9H-THIOXANTHEN-9-ONE (CAS: 5495-84-1)

|> Final use: **Workers.**

Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	2.92 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	2.06 mg of substance/m3

ETHYL PHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINATE (CAS: 84434-11-7)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	1.7 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	5.88 mg of substance/m3

2-HYDROXY-2-METHYLPROPIOPHENONE (CAS: 7473-98-5)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Short term systemic effects.
DNEL :	1.25 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	1.25 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL :	3.5 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	3.5 mg of substance/m3

SILICON DIOXIDE (CAS: 7631-86-9)

Final use:	**Workers.**
Exposure method:	Inhalation.
Potential health effects:	Short term local effects.
DNEL :	4 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	4 mg of substance/m3

HEXAMETHYLENE DIACRYLATE (CAS: 13048-33-4)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	2.77 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	24.5 mg of substance/m3
Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	2.08 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	1.66 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.

DNEL : 7.24 mg of substance/m3

|> Predicted no effect concentration (PNEC):

4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, ESTERS WITH ACRYLIC ACID (CAS: 55818-57-0)

Environmental compartment: Soil.
PNEC : 7.1 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.1 mg/l

Environmental compartment: Sea water.
PNEC : 0.01 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 1 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 35.8 mg/kg

Environmental compartment: Marine sediment.
PNEC : 3.58 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 10 mg/l

GLYCEROL, PROPOXYLATED, ESTERS WITH ACRYLIC ACID (CAS: 52408-84-1)

Environmental compartment: Soil.
PNEC : 0.0122 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.00574 mg/l

Environmental compartment: Sea water.
PNEC : 0.000574 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.078 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.0078 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 10 mg/l

2-ISOPROPYL-9H-THIOXANTHEN-9-ONE (CAS: 5495-84-1)

Environmental compartment: Soil.
PNEC : 0.024 mg/kg

Environmental compartment: Fresh water.
PNEC : 0 mg/l

Environmental compartment: Sea water.
PNEC : 0 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.121 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.012 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 100 mg/l

ETHYL PHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINATE (CAS: 84434-11-7)
Environmental compartment: Soil.
PNEC : 0.047 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.00101 mg/l

Environmental compartment: Sea water.
PNEC : 0.000101 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.0101 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.24 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.024 mg/kg

2-HYDROXY-2-METHYLPROPIOPHENONE (CAS: 7473-98-5)
Environmental compartment: Soil.
PNEC : 0.000674 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.00195 mg/l

Environmental compartment: Sea water.
PNEC : 0.000195 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.0195 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.00514 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.000514 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 45 mg/l

HEXAMETHYLENE DIACRYLATE (CAS: 13048-33-4)
Environmental compartment: Soil.
PNEC : 0.094 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.007 mg/l

Environmental compartment: Sea water.
PNEC : 0.001 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.493 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.049 mg/kg

Environmental compartment: Waste water treatment plant.

PNEC : 2.7 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 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

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

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 :

- Butyl Rubber (Isobutylene-isoprene copolymer)

|> - 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/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 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

Physical state

Physical state : Viscous liquid.

|> Colour

Unspecified

|> Odour

Odour threshold : Not stated.

|> Melting point

Melting point/melting range : Not specified.

|> Freezing point

Freezing point / Freezing range : Not stated.

|> Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not specified.

|> Flammability

Flammability (solid, gas) : Not stated.

|> Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) :	Not stated.
Explosive properties, upper explosivity limit (%) :	Not stated.

Flash point

Flash Point Interval :	FP > 100°C.

Auto-ignition temperature

Self-ignition temperature :	Not specified.

Decomposition temperature

Decomposition point/decomposition range :	Not specified.

|> pH

pH :	Not relevant.
pH (aqueous solution) :	Not stated.

|> Kinematic viscosity

Viscosity :	Not stated.

|> Solubility

Water solubility :	Insoluble.
Fat solubility :	Not stated.

|> Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water :	Not stated.

Vapour pressure

Vapour pressure (50°C) :	Below 110 kPa (1.10 bar).

Density and/or relative density

Density :	> 1

|> Relative vapour density

Vapour density :	Not stated.

|> 9.2. Other information

VOC (g/l) :	9.93

|> 9.2.1. Information with regard to physical hazard classes

No data available.

|> 9.2.2. Other safety characteristics

No data available.

|> Formation of explosible dust/air mixtures

Characteristic of dust particles :	Not stated.
Maximum pressure generated by the explosion :	Not stated.
Deflagration index (Kst) :	Not stated.
Minimum ignition energy :	Not stated.
MEC/LEL:	Not stated.

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

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

No data available.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

Splashes in the eyes may cause irritation and reversible damage

May cause an allergic reaction by skin contact.

11.1.1. Substances

Acute toxicity :

4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, ESTERS WITH ACRYLIC ACID (CAS: 55818-57-0)

Oral route :	LD50 > 2000 mg/kg bodyweight/day Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 > 2000 mg/kg bodyweight/day Species : Rat
Inhalation route (Dusts/mist) :	LC50 > 4.9 mg/l OECD Guideline 403 (Acute Inhalation Toxicity)

GLYCEROL, PROPOXYLATED, ESTERS WITH ACRYLIC ACID (CAS: 52408-84-1)

Oral route :	LD50 > 5000 mg/kg bodyweight/day Species : Rat

DODECYL ACRYLATE (CAS: 2156-97-0)

Oral route :	LD50 = 5570 mg/kg bodyweight/day Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 = 5000 mg/kg bodyweight/day Species : Rat OECD Guideline 402 (Acute Dermal Toxicity)
Inhalation route (Vapours) :	LC50 0.69

SILICON DIOXIDE (CAS: 7631-86-9)

Oral route :	LD50 > 5000 mg/kg bodyweight/day Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 > 5000 mg/kg bodyweight/day Species : Rabbit

HEXAMETHYLENE DIACRYLATE (CAS: 13048-33-4)

Oral route :	LD50 > 2000 mg/kg bodyweight/day Species : Rat
Dermal route :	LD50 > 2000 mg/kg bodyweight/day Species : Rabbit
Inhalation route (Vapours) :	LC50 > 5 mg/l Species : Rat

Duration of exposure : 4 h

Respiratory or skin sensitisation :

DODECYL ACRYLATE (CAS: 2156-97-0)

Species : Others

Germ cell mutagenicity :

SILICON DIOXIDE (CAS: 7631-86-9)

OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Ames test (in vitro) : Negative.
With or without metabolic activation.

4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, ESTERS WITH ACRYLIC ACID (CAS: 55818-57-0)

Mutagenesis (in vivo) : Negative.
Species : Mouse
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Mutagenesis (in vitro) : Negative.
Species : Mammalian Cell Line
OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

DODECYL ACRYLATE (CAS: 2156-97-0)

Mutagenesis (in vivo) : Negative.

OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Ames test (in vitro) : Negative.

Specific target organ systemic toxicity - repeated exposure :

DODECYL ACRYLATE (CAS: 2156-97-0)

Oral route : C = 1000 mg/kg bodyweight/day
Duration of exposure : 90 days
OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

SILICON DIOXIDE (CAS: 7631-86-9)

Oral route : C = 9000 mg/kg bodyweight/day
Species : Rat
Duration of exposure : 90 days
OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

11.1.2. Mixture

No toxicological data available for the mixture.

11.2. Information on other hazards

|>SECTION 12 : ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

|> 12.1.1. Substances

4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, ESTERS WITH ACRYLIC ACID (CAS: 55818-57-0)

Fish toxicity : LC50 > 100 mg/l
Species : Cyprinus carpio
Duration of exposure : 96 h

ISO 7346-1 (Determination of the Acute Lethal Toxicity of Substances to a Freshwater Fish. [Brachydanio rerio Hamilton-Buchanan (Teleostei, Cyprinidae)] - Part 1: Static method)

Crustacean toxicity : EC50 > 16 mg/l
Species : Daphnia magna
Duration of exposure : 48 h
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity : ECr50 = 17 mg/l
Species : Pseudokirchnerella subcapitata
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

DODECYL ACRYLATE (CAS: 2156-97-0)

Fish toxicity : LC50 > 4.3 mg/l
Species : Pimephales promelas
Duration of exposure : 96 h

Crustacean toxicity : EC10 mg/l
Species : Daphnia magna
Duration of exposure : 21 days
OECD Guideline 211 (Daphnia magna Reproduction Test)

Aquatic plant toxicity : ECr50 = 51.6 mg/l
Duration of exposure : 72 h

EC10 mg/l
Species : Others
Duration of exposure : 72 h

SILICON DIOXIDE (CAS: 7631-86-9)

Fish toxicity : LC50 = 10000 mg/l
Species : Danio rerio
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : EC50 > 1000 mg/l
Species : Daphnia magna
Duration of exposure : 24 h
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity : ECr50 > 10000 mg/l
Species : Scenedesmus subspicatus
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

HEXAMETHYLENE DIACRYLATE (CAS: 13048-33-4)

Fish toxicity : LC50 = 0.38 mg/l
Factor M = 1
Species : Oryzias latipes
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

NOEC = 0.072 mg/l
Species : Oryzias latipes
Duration of exposure : 35 days
OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test)

Crustacean toxicity : EC50 = 2.7 mg/l

	Species : Daphnia magna Duration of exposure : 48 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
	NOEC = 0.14 mg/l Species : Daphnia magna Duration of exposure : 21 days OECD Guideline 211 (Daphnia magna Reproduction Test)
Algae toxicity :	ECr50 = 1.5 mg/l Species : Desmodesmus subspicatus Duration of exposure : 72 h OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC = 0.5 mg/l Species : Desmodesmus subspicatus Duration of exposure : 72 h OECD Guideline 201 (Alga, Growth Inhibition Test)
Aquatic plant 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

4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, ESTERS WITH ACRYLIC ACID (CAS: 55818-57-0)

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

DODECYL ACRYLATE (CAS: 2156-97-0)

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

SILICON DIOXIDE (CAS: 7631-86-9)

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

HEXAMETHYLENE DIACRYLATE (CAS: 13048-33-4)

Biodegradability :	Rapidly degradable.

12.3. Bioaccumulative potential

12.3.1. Substances

DODECYL ACRYLATE (CAS: 2156-97-0)

Octanol/water partition coefficient :	log Koe > 6.5

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. 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, 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

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2023 - IMDG 2020 [40-20] - ICAO/IATA 2023 [64]).

14.1. UN number or ID number

3082

|> 14.2. UN proper shipping name

UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(hexamethylene diacrylate)

14.3. Transport hazard class(es)

- Classification :

9

14.4. Packing group

III

14.5. Environmental hazards

- Environmentally hazardous material :

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M6	III	9	90	5 L	274 335 375 601	E1	3	-

Not subject to this regulation if Q <= 5 l / 5 kg (ADR 3.3.1 - DS 375)

|>

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	9	-	III	5 L	F-A. S-F	274 335 969	E1	Category A	-

Not subject to this regulation if Q <= 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	-	III	964	450 L	964	450 L	A97 A158 A197 A215	E1
	9	-	III	Y964	30 kg G	-	-	A97 A158 A197 A215	E1

Not subject to this regulation if Q <= 5 l / 5 kg (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(hexamethylene diacrylate)

14.7. Maritime transport in bulk according to IMO instruments

No data available.

|>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:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

Container information:

No data available.

|> Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): https://echa.europa.eu/substances-restricted-under-reach.

|> Explosives precursors :

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

Particular provisions :

No data available.

15.2. Chemical safety assessment

This product contains substances for which Chemical Safety Assessments are still to be received

|>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.

|> Indicates changes from previous version

|> Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 :

Classification in accordance with Regulation (EC) No 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method.
Eye Irrit. 2, H319	Calculation method.
Skin Sens. 1, H317	Calculation method.
Aquatic Acute 1, H400	Calculation method.
Aquatic Chronic 2, H411	Calculation method.

|> Wording of the phrases mentioned in section 3 :

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

|> Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

DNEL : Derived No-Effect Level
PNEC : Predicted No-Effect Concentration
CMR: Carcinogenic, mutagenic or reprotoxic.
UFI : Unique formulation identifier.
STEL : Short-term exposure limit
TWA : Time Weighted Averages
TMP : French Occupational Illness table
TLV : Threshold Limit Value (exposure)
AEV : Average Exposure Value.
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
GHS09 : Environment
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.
|> Modification compared to the previous version