

|>

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 : UST, PRODUIT DE SERIGRAPHIE

Product code : 2572031.

This MSDS is valid for all packaging of this product.

**|> 1.2. Relevant identified uses of the substance or mixture and uses advised against
RELATED PRODUCTS****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.**

Hazardous to the aquatic environment - Chronic hazard, Category 3 (Aquatic Chronic 3, H412).

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.**

Additional labeling :

Hazard statements :

H412

Harmful to aquatic life with long lasting effects.

Precautionary statements - Prevention :

P273

Avoid release to the environment.

|> 2.3. Other hazardsThe 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: 94108-97-1 EC: 302-434-9 REACH: 01-2119977121-41-XXXX DI(TRIMETHYLOLPROPANE)TETRAACRYLATE	GHS07, GHS09 Wng Eye Irrit. 2, H319 Aquatic Chronic 2, H411		2.5 <= x % < 10
CAS: 64401-02-1 EC: 613-584-2 REACH: 01-2119969511-34-xxxx ETHOXYLATED BISPHENOL A DIACRYLATE	GHS09 Wng Aquatic Chronic 2, H411		2.5 <= x % < 10
CAS: 27138-31-4 EC: 248-258-5 REACH: 01-2119529241-49-XXXX PROPANOL, OXYBIS-, DIBENZOATE	Aquatic Chronic 3, H412		2.5 <= x % < 10

> Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 64401-02-1 EC: 613-584-2 REACH: 01-2119969511-34-xxxx ETHOXYLATED BISPHENOL A DIACRYLATE		dermal: ATE = 2000 mg/kg BW oral: ATE = 2000 mg/kg BW
CAS: 27138-31-4 EC: 248-258-5 REACH: 01-2119529241-49-XXXX PROPANOL, OXYBIS-, DIBENZOATE		oral: ATE = 3914 mg/kg BW

Information on ingredients :

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

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.

In the event of swallowing :

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, 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**

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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 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.

> 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.

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.

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7.3. Specific end use(s)

No data available.

>SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

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

PROPANOL, OXYBIS-, DIBENZOATE (CAS: 27138-31-4)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Short term systemic effects.
170 mg/kg body weight/dayExposure method:
Potential health effects:
DNEL :Dermal contact.
Long term systemic effects.
10 mg/kg body weight/dayExposure method:
Potential health effects:
DNEL :Inhalation.
Short term systemic effects.
35.08 mg of substance/m3Exposure method:
Potential health effects:
DNEL :Inhalation.
Long term systemic effects.
8.8 mg of substance/m3

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Ingestion.
Short term systemic effects.
80 mg/kg body weight/dayExposure method:
Potential health effects:
DNEL :Ingestion.
Long term systemic effects.
5 mg/kg body weight/dayExposure method:
Potential health effects:
DNEL :Dermal contact.
Short term systemic effects.
80 mg/kg body weight/dayExposure method:
Potential health effects:
DNEL :Dermal contact.
Long term systemic effects.
0.22 mg/kg body weight/dayExposure method:
Potential health effects:
DNEL :Inhalation.
Short term systemic effects.
8.7 mg of substance/m3Exposure method:
Potential health effects:
DNEL :Inhalation.
Long term systemic effects.
8.69 mg of substance/m3

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

Ingestion.
Long term systemic effects.
0.5 mg/kg body weight/dayExposure method:
Potential health effects:Dermal contact.
Long term systemic effects.

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DNEL : 1 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 0.87 mg of substance/m3

DI(TRIMETHYLOLPROPANE)TETRAACRYLATE (CAS: 94108-97-1)

Final use: **Workers.**
Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 4.67 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 16.46 mg of substance/m3

Predicted no effect concentration (PNEC):

PROPANOL, OXYBIS-, DIBENZOATE (CAS: 27138-31-4)

Environmental compartment: Soil.
PNEC : 1 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.0037 mg/l

Environmental compartment: Sea water.
PNEC : 0.00037 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.037 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 1.49 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.149 mg/kg

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

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)

Environmental compartment: Soil.
PNEC : 0.1208 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.006 mg/l

Environmental compartment: Sea water.
PNEC : 0.0006 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.06 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.6216 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.06216 mg/kg

Environmental compartment: Waste water treatment plant.

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PNEC : 1.43 mg/l

DI(TRIMETHYLOLPROPANE)TETRAACRYLATE (CAS: 94108-97-1)

Environmental compartment: Soil.
PNEC : 0.0096 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.0012 mg/l

Environmental compartment: Sea water.
PNEC : 0.00012 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.012 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.0484 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.0048 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 100 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

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

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.

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> **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) : 0.00

> **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.

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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.

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.

Splashes in the eyes may cause irritation and reversible damage

11.1.1. Substances**Acute toxicity :**

PROPANOL, OXYBIS-, DIBENZOATE (CAS: 27138-31-4)

Oral route : LD50 = 3914 mg/kg bodyweight/day
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

Dermal route : LD50 > 2000 mg/kg bodyweight/day
Species : Rat
OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (n/a) : LC50 > 200 mg/l
Duration of exposure : 4 h

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)

Oral route : LD50 = 2000 mg/kg bodyweight/day
Species : Rat
OECD Guideline 423 (Acute Oral toxicityAcute Toxic Class Method)

Dermal route : LD50 = 2000 mg/kg bodyweight/day
Species : Rat
OECD Guideline 402 (Acute Dermal Toxicity)

Respiratory or skin sensitisation :

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)

Local lymph node stimulation test : Non-Sensitiser.
Species : Mouse
OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Guinea Pig Maximisation Test (GMPT) : Non-sensitiser.
Species : Mouse
OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Buehler Test : Non-sensitiser.
Species : Mouse
OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity :

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)

No mutagenic effect.

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Mutagenesis (in vitro) : Negative.
Species : Mammalian Cell Line
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Ames test (in vitro) : Negative.

Carcinogenicity :

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)
Carcinogenicity Test : Negative.
No carcinogenic effect.

Reproductive toxicant :

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)
No toxic effect for reproduction
Study on development : Species : Rat
OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

Specific target organ systemic toxicity - repeated exposure :

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)
Species : Rat
OECD Guideline 407 (Repeated Dose 28-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**

Harmful 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**

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)
Fish toxicity : LC50 > 100 mg/l
Species : Oncorhynchus mykiss
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : EC50 = 6 mg/l
Species : Daphnia magna
Duration of exposure : 48 h
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity : EC50 > 100 mg/l
Species : Pseudokirchnerella subcapitata
Duration of exposure : 72 h
OECD Guideline 201 (Alga, Growth Inhibition Test)

DI(TRIMETHYLOLPROPANE)TETRAACRYLATE (CAS: 94108-97-1)
Fish toxicity : LC50 >= 1.2 mg/l
Species : Cyprinus carpio
Duration of exposure : 96 h

Crustacean toxicity : EC50 >= 10 mg/l
Species : Daphnia magna
Duration of exposure : 48 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

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

ETHOXYLATED BISPHENOL A DIACRYLATE (CAS: 64401-02-1)

Biodegradability : Non-rapidly degradable.

DI(TRIMETHYLOLPROPANE)TETRAACRYLATE (CAS: 94108-97-1)

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

PROPANOL, OXYBIS-, DIBENZOATE (CAS: 27138-31-4)

Chemical oxygen demand : DCO = 2.23 g/l

Five-day biochemical oxygen demand : DBO5 = 0.65 g/l

Biodegradability : Non-rapidly degradable.
DBO5/DCO = 0.29**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. 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

Exempt from transport classification and labelling.

14.1. UN number or ID number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

14.7. Maritime transport in bulk according to IMO instruments

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>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. 2021/643 (ATP 16)
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/849 (ATP 17)

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
Aquatic Chronic 3, H412	Calculation method.

Wording of the phrases mentioned in section 3 :

H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

> 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.
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
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).
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.
> Modification compared to the previous version