

**DETECTEUR DE FUITE - FCA000119 - 181900**

**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 : DETECTEUR DE FUITE  
Product code : FCA000119 - 181900

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

**1.3. Details of the supplier of the safety data sheet**

Registered company name : RUBIX Engineering Address : 61,  
Avenue Tony Garnier.69007.LYON.France. Telephone :  
01.44.86.08.10. Fax : .  
info-rubix-engineering@rubix.com

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

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

**SECTION 2 : HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

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

Aerosol, Category 3 (Aerosol 3, H229).

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

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

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

The propellant gas is taken into account when determining the health and environmental classification of the mixture.

**2.2. Label elements**

Mixture for aerosol application.

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

Hazard pictograms :



GHS07

Signal Word :

WARNING

Product identifiers :

EC 946-533-0

REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C11-17 AND C17  
UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND PROPENOIC ACID

Additional labeling :

0.5% by mass of the contents are flammable.

Hazard statements :

H229

Pressurised container: May burst if heated.

H317

May cause an allergic skin reaction.

H319

Causes serious eye irritation.

Precautionary statements - General :

P101

If medical advice is needed, have product container or label at hand.

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P102	Keep out of reach of children.
Precautionary statements - Prevention :	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response :	
P337 + P313	If eye irritation persists: Get medical advice/attention.
Precautionary statements - Storage :	
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
Precautionary statements - Disposal :	
P501	Eliminate the contents / container according to the local regulations.

**2.3. Other hazards**

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq 0.1\%$  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  $\geq 0.1\%$  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	(EC) 1272/2008	Note	%
INDEX: A112276 CAS: 112-27-6 EC: 203-953-2  TRIÉTHYLÈNE GLYCOL		[1]	$2.5 \leq x \% < 10$
INDEX: A9465330 EC: 946-533-0 REACH: 01-2120750377-50  REACTION PRODUCTS OF 1H-IMIDAZOLE-1-ETHANOL, 4,5-DIHYDRO-, 2-(C11-17 AND C17 UNSATD. ALKYL) DERIVS. AND SODIUM HYDROXIDE AND PROPENOIC ACID	GHS05, GHS07 Dgr Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412		$1 \leq x \% < 2.5$
INDEX: 10024972 CAS: 10024-97-2 EC: 233-032-0 REACH: 01-2119970538-25  PROTOXYDE D'AZOTE	GHS03, GHS04 Dgr Ox. Gas 1, H270 Press. Gas, H280	[1] [7]	$1 \leq x \% < 2.5$
INDEX: B308062284 CAS: 308062-28-4 EC: 931-292-6 REACH: 01-2119490061-47  AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL, N-OXIDES	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411 Aquatic Acute 1, H400 M Acute = 1		$0 \leq x \% < 1$

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INDEX: 613028009B CAS: 110-91-8 EC: 203-815-1 REACH: 01-2119496057-30  MORPHOLINE	GHS08, GHS06, GHS05, GHS02 Dgr Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 3, H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Acute Tox. 3, H331 Repr. 2, H361fd	[1] [2]	0 <= x % < 1
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**Specific concentration limits:**

Identification	Specific concentration limits	ATE
INDEX: B308062284 CAS: 308062-28-4 EC: 931-292-6 REACH: 01-2119490061-47  AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL, N-OXIDES		oral: ATE = 1064 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.

[7] Propellant gas

**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 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**

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**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 (CO<sub>2</sub>)

**5.3. Advice for firefighters**

No data available.

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**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.

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**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 :**

Do not pierce or burn, even after use.

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.

Do not breathe in aerosols.

Avoid skin and eye contact with this mixture.

**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 out of reach of children.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.

**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**

**Occupational exposure limits :**

- European Union (2022/431, 2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m <sup>3</sup>	VME-ppm	VLE-mg/m <sup>3</sup>	VLE-ppm	Notes
110-91-8	36	10	72	20	-

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA	STEL	Ceiling	Definition	Criteria
10024-97-2	50 ppm			A4	
110-91-8	20 ppm			Skin; A4	

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

CAS	VME	VME	Excess	Notes
112-27-6		1000 E mg/m <sup>3</sup>		2(II)
10024-97-2		100 ppm 180 mg/m <sup>3</sup>		2(II)
110-91-8		10 ppm 36 mg/m <sup>3</sup>		2(I)

- France (INRS - Outils 65 / 2021-1849, 2021-1763, decree of 09/12/2021) :

CAS	VME-ppm	VME-mg/m <sup>3</sup>	VLE-ppm	VLE-mg/m <sup>3</sup>	Notes	TMP No
110-91-8	10	36	20	72	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA	STEL	Ceiling	Definition	Criteria
10024-97-2	100 ppm 183 mg/m <sup>3</sup>				
110-91-8	10 ppm 36 mg/m <sup>3</sup>	20 ppm 72 mg/m <sup>3</sup>		Sk	

**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 with protective sides accordance with standard EN166.

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

When spraying, wear a face shield in accordance with standard EN166.

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 :

- Natural latex

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

**- Body protection**

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of spraying, wear protective clothing against chemical risks and against sprayed liquid (type 4) in accordance with EN14605/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.

**- Respiratory protection**

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- NOP3 (Blue + white)

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**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

**Physical state**

Physical state : Fluid 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 : Not relevant.

**Auto-ignition temperature**

Self-ignition temperature : Not specified.

**Decomposition temperature**

Decomposition point/decomposition range : Not specified.

**pH**

pH : 8.80 0.2.  
Slightly basic.

pH (aqueous solution) : Not stated.

**Kinematic viscosity**

Viscosity : Not stated.

Viscosity:  $\nu < 7 \text{ mm}^2/\text{s}$  (40°C)

**Solubility**

Water solubility : Soluble.

Fat solubility : Not stated.

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**Partition coefficient n-octanol/water (log value)**

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

**Vapour pressure**

Vapour pressure (50°C) : Not relevant.

**Density and/or relative density**

Density : = 1

**Relative vapour density**

Vapour density : Not stated.

**9.2. Other information**

No data available.

**9.2.1. Information with regard to physical hazard classes**

No data available.

**Aerosols**

Chemical combustion heat : < 20 kJ/g.

**9.2.2. Other safety characteristics**

No data available.

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**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
- flames and hot surfaces

**10.5. Incompatible materials**

Keep away from :

- strong acids
- strong oxidising agents

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

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**SECTION 11 : TOXICOLOGICAL INFORMATION**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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

May cause an allergic reaction by skin contact.

**11.1.1. Substances**

**Acute toxicity :**

AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL, N-OXIDES (CAS: 308062-28-4)

Oral route : LD<sub>50</sub> = 1064 mg/kg  
Species : Rat

Dermal route : LD<sub>50</sub> > 2000 mg/kg  
Species : Rat

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**Skin corrosion/skin irritation :**

AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL, N-OXIDES (CAS: 308062-28-4)

Species : Rabbit

Other guideline

**11.1.2. Mixture**

No toxicological data available for the mixture.

**11.2. Information on other hazards**

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

CAS 110-91-8 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

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**SECTION 12 : ECOLOGICAL INFORMATION**

**12.1. Toxicity**

**12.1.1. Substances**

AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL, N-OXIDES (CAS: 308062-28-4)

Fish toxicity :

LC50 < 1 mg/l

Factor M = 1

Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 3.1 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

Algae toxicity :

ECr50 = 0.146 mg/l

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**

AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL, N-OXIDES (CAS: 308062-28-4)

Biodegradability :

Rapidly degradable.

**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**

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**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.



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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 2021 - IMDG 2020 [40-20] - ICAO/IATA 2022 [63]).

**14.1. UN number or ID number**

1950

**14.2. UN proper shipping name**

UN1950=AEROSOLS, asphyxiant

**14.3. Transport hazard class(es)**

- Classification :



2.2

**14.4. Packing group**

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**14.5. Environmental hazards**

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**14.6. Special precautions for user**

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	2	5A	-	2.2	-	1 L	190 327 344 625	E0	3	E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	2	See SP63	-	See SP277	F-D. S-U	63 190 277 327 344 381 959	E0	- SW1 SW22	SG69

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	2.2	-	-	203	75 kg	203	150 kg	A98 A145 A167 A802	E0
	2.2	-	-	Y203	30 kg G	-	-	A98 A145 A167 A802	E0

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.

**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:**

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>.

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**- 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.

**Wording of the phrases mentioned in section 3 :**

H226	Flammable liquid and vapour.
H270	May cause or intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Abbreviations :**

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

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 : Wassergefährdungsklasse (Water Hazard Class).

GHS07 : Exclamation mark

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PBT: Persistent, bioaccumulable and toxic.  
vPvB : Very persistent, very bioaccumulable.  
SVHC : Substances of very high concern.