## SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Proteomic Stabilizer PROT1 Trade name or designation

of the mixture

Registration number

**Synonyms** None.

PROT1, PROT1-250ML, PROT1-1L, MTS1P-100/CS **Product code** 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Stabilization of whole blood samples.

Uses advised against Research use only.

1.3. Details of the supplier of the safety data sheet

Smart Tube, Inc. Company name

**Address** 6658 W. Sunset Road, Suite 100

Las Vegas, NV 89118

Website www.smarttubeinc.com For product information +1 855 397 8467

call

CHEMTREC: 372 668 1294 For emergencies only call

1.4. Emergency telephone number

General in EU 112 (Available 24 hours a day. SDS/Product information may not be available for

the Emergency Service.)

**National Poisons** 16662 or abroad: (+372) 626 9390 (Monday 9:00AM to Saturday 9:00AM (closed

on Sundays and on national holidays). SDS/Product information may not be **Information Centre** 

available for the Emergency Service.)

## **SECTION 2: Hazards identification**

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

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

### Classification according to Regulation (EC) No 1272/2008 as amended

**Health hazards** 

Acute toxicity, inhalation H331 - Toxic if inhaled. Category 3 H315 - Causes skin irritation. Skin corrosion/irritation Category 2 H319 - Causes serious eye Serious eye damage/eye irritation Category 2

irritation.

Skin sensitisation Category 1 H317 - May cause an allergic skin

reaction.

Germ cell mutagenicity Category 2 H341 - Suspected of causing

genetic defects.

Category 1B Carcinogenicity H350 - May cause cancer.

Specific target organ toxicity - single Category 3 respiratory tract irritation H335 - May cause respiratory

irritation.

#### 2.2. Label elements

exposure

## Label according to Regulation (EC) No. 1272/2008 as amended

Formaldehyde Contains:

**Hazard pictograms** 



Signal word Danger

**Hazard statements** 

Causes skin irritation. H315

H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H350 May cause cancer.

#### **Precautionary statements**

Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P201 Obtain special instructions before use.

P261 Avoid breathing mist/vapours.

Response

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P311 Call a POISON CENTRE/doctor.

**Storage** 

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

**Disposal** Not assigned.

Supplemental information on

the label

Restricted to professional users.

2.3. Other hazards This mixture does not contain substances assessed to be vPvB / PBT according to Regulation

(EC) No 1907/2006, Annex XIII.

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

## **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Diethylene glycol	3 - 7	111-46-6 203-872-2	01-2119457857-21-xxxx	603-140-00-6	
Class	ification: Acute Tox.	4;H302;(ATE: 500 m	ng/kg), STOT RE 2;H373		
Formaldehyde	3 - 7	50-00-0 200-001-8	01-2120762098-48-xxxx	605-001-00-5	#
Class	Classification: Flam. Liq. 3;H226, Acute Tox. 3;H301;(ATE: 100 mg/kg), Acute Tox. 3;H311;(ATE: 300 mg/kg), Acute Tox. 2;H330;(ATE: 0,5 mg/l), Skin Corr. 1B;H314, Eye Dam. 1;H318, Skin Sens. 1;H317, Muta. 2;H341, Carc. 1B;H350, STOT SE 3;H335			B,D	
Specific Concentratio	Dam. 1;H3		, Skin Irrit. 2;H315: 5 % <= 0 rrit. 2;H319: 5 % <= C < 25 3;H335: C >= 5 %		

## List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

ATE: Acute toxicity estimate.

Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: "nitric acid ...%". In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Note D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words "non-stabilised".

**Composition comments** The full text for all H-statements is displayed in section 16.

All concentrations are in percent by weight unless otherwise indicated.

Components not listed are either non-hazardous or are below reportable limits.

#### **SECTION 4: First aid measures**

**General information** 

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

#### 4.1. Description of first aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a poison center or doctor/physician.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms

and effects, both acute and delayed

Skin irritation. May cause redness and pain. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

## **SECTION 5: Firefighting measures**

General fire hazards

No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing

media

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

No restrictions known.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters

Move containers from fire area if you can do so without risk.

Special fire fighting procedures

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear

appropriate personal protective equipment. For emergency responders

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

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## **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist/vapours. Avoid contact with eyes. Avoid contact with skin and clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

# 7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see section 10 of the SDS).

7.3. Specific end use(s)

Stabilization of whole blood samples.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### Occupational exposure limits

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended		
Components	Туре	Value
Formaldehyde (CAS 50-00-0)	STEL	1,2 mg/m3
		1 ppm
	TWA	0,6 mg/m3
		0.5 ppm

## Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Туре	Value	
Diethylene glycol (CAS 111-46-6)	STEL	90 mg/m3	
		20 ppm	
	TWA	45 mg/m3	
		10 ppm	

## EU. OELs, Directive 2004/37/EC on carcinogen and mutagens from Annex III, Part A Components Type Value

Formaldehyde (CAS	TWA	0,37 mg/m3
50-00-0)		

0,3 ppm

### **Biological limit values**

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

Follow standard monitoring procedures.

#### Derived no effect levels (DNELs)

#### **General Population**

Components	Value	Assessment factor	Notes	
Formaldehyde (CAS 50-00-0)				
Long-term, Local, Dermal	12 μg/cm2	3	Skin Sensitisation	
Long-term, Local, Inhalation	0,1 mg/m3		Repeated dose toxicity	
Long-term, Systemic, Dermal	102 mg/kg bw/day	20	Repeated dose toxicity	
Long-term, Systemic, Inhalation	3,2 mg/m3	1	Repeated dose toxicity	
Long-term, Systemic, Oral	4,1 mg/kg bw/day	20	Repeated dose toxicity	
<u>Workers</u>				
Components	Value	Assessment factor	Notes	
Formaldehyde (CAS 50-00-0)				
Long-term, Local, Dermal	37 μg/cm2	1	Skin Sensitisation	
Long-term, Local, Inhalation	0,375 mg/m3		Repeated dose toxicity	
Long-term, Systemic, Dermal	240 mg/kg bw/day	12	Repeated dose toxicity	
Long-term, Systemic, Inhalation	9 mg/m3	1	Repeated dose toxicity	
Short-term, Local, Inhalation	0,75 mg/m3		Repeated dose toxicity	
dicted no effect Not availacentrations (PNECs)	able.			

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#### **Exposure guidelines**

Estonia OELs: Skin designation

Diethylene glycol (CAS 111-46-6)

Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering

controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

**General information** Use personal protective equipment as required. Personal protection equipment should be chosen

according to the CEN standards and in discussion with the supplier of the personal protective

equipment.

Eye/face protection When working with liquids wear splash-proof chemical goggles and face shield unless full

facepiece respiratory protection is worn. Eye protection should meet standard EN 166.

Skin protection

- Hand protection Wear appropriate chemical resistant gloves. Nitrile or neoprene gloves are recommended. (EN

374)

material thickness: 3.9 mmbreak through time: 120 min

Other suitable gloves can be recommended by the glove supplier.

- Other Wear appropriate chemical resistant clothing. (EN 14605). Use of an impervious apron is

recommended.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure

limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapour cartridge and full facepiece. Use filter type B/P3A2 according to EN 14387. Check with respiratory

protective equipment suppliers.

**Thermal hazards** No protection is ordinarily required under normal conditions of use.

Hygiene measures Observe any medical surveillance requirements. Always observe good personal hygiene

measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Contaminated work clothing should not be allowed out of the workplace.

**Environmental exposure** 

controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or

engineering modifications to the process equipment may be necessary to reduce emissions to

acceptable levels.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical stateLiquid.FormLiquid.ColourColourless.OdourFormaldehyde.

**Melting point/freezing point** Property has not been measured.

Boiling point or initial boiling point and boiling range

100 °C (212 °F)

Flammability Not flammable.

Lower and upper explosion limit

Explosive limit - lower (%) Not applicable.

Explosive limit - upper Not applicable.

(%)

Flash point Does not flash.

Auto-ignition temperature Not applicable.

**Decomposition temperature** Property has not been measured.

**pH** 7,8

**Kinematic viscosity** Property has not been measured.

Solubility

Solubility (water) Miscible in water.

Partition coefficient Not applicable, product is a mixture. (n-octanol/water) (log value)

Vapour pressure Property has not been measured.

Density and/or relative density

**Relative density** Property has not been measured. **Vapour density** Property has not been measured.

**Particle characteristics** 

Particle size Not applicable, material is a liquid.

9.2. Other information

**9.2.1. Information with regard** No relevant additional information available. **to physical hazard classes** 

9.2.2. Other safety characteristics

**Viscosity** 1 cP (25 °C (77 °F))

## **SECTION 10: Stability and reactivity**

**10.1. Reactivity**The product is stable and non-reactive under normal conditions of use, storage and transport.

**10.2. Chemical stability** Material is stable under normal conditions.

10.3. Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid**Contact with incompatible materials.

**10.5. Incompatible materials** Strong oxidising agents.

**10.6. Hazardous** No hazardous decomposition products are known.

decomposition products

## **SECTION 11: Toxicological information**

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

#### Information on likely routes of exposure

**Inhalation** Toxic if inhaled.

**Skin contact** Causes skin irritation. May cause an allergic skin reaction.

**Eye contact** Causes serious eye irritation.

**Ingestion** May cause discomfort if swallowed.

Symptoms Skin irritation. May cause redness and pain. Severe eye irritation. Symptoms may include

stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. May cause

an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

## 11.1. Information on toxicological effects

Acute toxicity Toxic if inhaled.

Diethylene glycol (CAS 111-46-6)

Acute Dermal

LD50 Rabbit 11890 mg/kg

Formaldehyde (CAS 50-00-0)

Acute Inhalation

Vapour

LC50 Rat < 0,58 mg/l, 4 Hours

Oral

LD50 Rat 460 mg/kg

Other

LD50 Rabbit 270 mg/kg

Causes serious eye irritation.

**Skin corrosion/irritation** Causes skin irritation.

Serious eye damage/eye

Respiratory sensitisation

irritation

Based on available data, the classification criteria are not met.

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity Suspected of causing genetic defects.

Carcinogenicity May cause cancer.

## IARC Monographs. Overall Evaluation of Carcinogenicity

Formaldehyde (CAS 50-00-0)

1 Carcinogenic to humans.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Specific target organ toxicity -

single exposure

May cause respiratory irritation.

No information available.

Specific target organ toxicity -

repeated exposure

Based on available data, the classification criteria are not met.

**Aspiration hazard** 

Mixture versus substance

information

Not an aspiration hazard.

11.2. Information on other hazards

**Endocrine disrupting** 

properties

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

Other information Symptoms may be delayed.

## **SECTION 12: Ecological information**

Based on available data, the classification criteria are not met for hazardous to the aquatic 12.1. Toxicity

environment.

Components **Species Test Results** 

Formaldehyde (CAS 50-00-0)

Aquatic

EC50 3,48 mg/l, 72 hours Algae Desmodesmus subspicatus Crustacea LC50 Daphnia pulex 5,8 mg/l, 48 hours Fish LC50 Morone saxatilis 6,7 mg/l, 96 hours

12.2. Persistence and

degradability

No data is available on the degradability of this product.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Formaldehyde (CAS 50-00-0)

0,35

**Bioconcentration factor (BCF)** 

12.4. Mobility in soil

12.5. Results of PBT and vPvB

assessment

This product is miscible in water.

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation

(EC) No 1907/2006, Annex XIII.

12.6. Endocrine disrupting

properties

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Not available.

12.7. Other adverse effects

The product contains volatile organic compounds which have a photochemical ozone creation potential.

## 12.8. Additional information

### Estonia Dangerous substances in soil Data

Formaldehyde (CAS 50-00-0)

Chemical pesticides (As the total sum of the active substances)

0,5 mg/kg

Chemical pesticides (As the total sum of the active substances) 20

Chemical pesticides (As the total sum of the active substances) 5

mg/kg

## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Dispose in accordance with local regulations. Empty containers or liners may retain some product Residual waste

residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

contents/container in accordance with local/regional/national/international regulations.

## **SECTION 14: Transport information**

#### **ADR**

**14.1. UN number**Not regulated as dangerous goods. **14.2. UN proper shipping**Not regulated as dangerous goods.

name

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk -

Hazard No. (ADR) Not assigned.
Tunnel restriction code Not assigned.

14.4. Packing group Not assigned.

14.5. Environmental hazards No.

14.6. Special precautions Not assigned.

for user

RID

14.1. UN number Not regulated as dangerous goods.14.2. UN proper shipping Not regulated as dangerous goods.

name

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk

**14.4. Packing group** Not assigned.

14.5. Environmental hazards No.

**14.6. Special precautions** Not assigned.

for user

#### ADN

14.1. UN number Not regulated as dangerous goods.14.2. UN proper shipping Not regulated as dangerous goods.

name

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk

**14.4. Packing group** Not assigned.

14.5. Environmental hazards No.

14.6. Special precautions Not assigned.

for user

## **IATA**

14.1. UN number Not regulated as dangerous goods.14.2. UN proper shipping Not regulated as dangerous goods.

name

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk

14.4. Packing group Not assigned.

14.5. Environmental hazards No.

14.6. Special precautions Not assigned.

for user

## **IMDG**

14.1. UN number Not regulated as dangerous goods.14.2. UN proper shipping Not regulated as dangerous goods.

name

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk

**14.4. Packing group** Not assigned.

14.5. Environmental hazards

Marine pollutant No.

EmS Not assigned. 14.6. Special precautions Not assigned.

for user

14.7. Maritime transport in bulk Not established.

according to IMO instruments

## **SECTION 15: Regulatory information**

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **EU** regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Diethylene glycol (CAS 111-46-6)

Formaldehyde (CAS 50-00-0)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed.

#### **Authorisations**

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended

Not listed

#### Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended Formaldehyde (CAS 50-00-0)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Formaldehyde (CAS 50-00-0)

#### Other EU regulations

## Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Formaldehyde (CAS 50-00-0)

Other regulations The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP

Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation

(EC) No 1907/2006, as amended.

National regulations According to Directive 92/85/EEC as amended, pregnant women should not work with the product,

if there is the least risk of exposure.

Young people under 18 years old are not allowed to work with this product according to EU

Directive 94/33/EC on the protection of young people at work, as amended.

Follow national regulation on the protection of workers from the risks of exposure to carcinogens

and mutagens at work, in accordance with Directive 2004/37/EC, as amended.

15.2. Chemical safety

assessment

No Chemical Safety Assessment has been carried out.

#### **SECTION 16: Other information**

## List of abbreviations

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.

EC50: Effective Concentration, 50%.

IATA: International Air Transport Association.

IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.

IMDG Code: International Maritime Dangerous Goods Code.

LC50: Lethal Concentration 50%.

LD50: Lethal Dose, 50%.

MARPOL: International Convention for the Prevention of Pollution from Ships.

PBT: Persistent, bioaccumulative, toxic.

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

vPvB: very Persistent, very Bioaccumulative.

#### References

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

EPA: AQUIRE database

HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity

NLM: Hazardous Substances Data Base

National Toxicology Program (NTP) Report on Carcinogens

# Information on evaluation method leading to the classification of mixture

on evaluation The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15

H226 Flammable liquid and vapour.

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. H318 Causes serious eye damage.

H330 Fatal if inhaled.

H335 May cause respiratory irritation. H341 Suspected of causing genetic defects.

H350 May cause cancer.

H373 May cause damage to organs through prolonged or repeated exposure by ingestion.

Training information Disclaimer Follow training instructions when handling this material.

Smart Tube, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.