

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.04.2022

Version number 5

Revision: 20.04.2022

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

### · 1.1 Product identifier

· **Trade name:** TRU Resin - B

### · Article number:

TR-B25-A, TR-B50-A, TR-B100-A, TR-B200-A, TR-Bxxx-A, SA-TR-B01-A, TR-B10-S, TR-B25-S, TR-B50-S, TR-B100-S, TR-B200-S, TR-Bxxx-S, SA-TR-B01-S

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

· **Sector of Use** SU24 Scientific research and development

· **Application of the substance / the mixture** Selective resin for actinides separation

### · 1.3 Details of the supplier of the safety data sheet

#### · Manufacturer/Supplier:

Triskem International SAS  
ZAC de l'Eperon  
3 rue des Champs Géons  
F-35170 Bruz  
FRANCE  
contact@triskem.fr

· **Further information obtainable from:** Product safety department

· **1.4 Emergency telephone number:** During normal opening times: +33 2 99 05 00 09

## \* SECTION 2: Hazards identification

### · 2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**



health hazard

Carc. 2

H351 Suspected of causing cancer.



Skin Irrit. 2

H315 Causes skin irritation.

Eye Irrit. 2

H319 Causes serious eye irritation.

STOT SE 3

H335 May cause respiratory irritation.

Aquatic Chronic 3

H412 Harmful to aquatic life with long lasting effects.

### · 2.2 Label elements

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

### · Hazard pictograms



GHS07



GHS08

· **Signal word** Warning

### · **Hazard-determining components of labelling:**

tributyl phosphate

Acrylic copolymer

### · **Hazard statements**

H315 Causes skin irritation.

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H319 Causes serious eye irritation.  
H351 Suspected of causing cancer.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.

## Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## 2.3 Other hazards

### Results of PBT and vPvB assessment

PBT: Not applicable.  
vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

### Dangerous components:

	polymeric support	50-100%
CAS: 126-73-8	◆ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
EINECS: 204-800-2	tributyl phosphate ◆ Carc. 2, H351; ◆ Acute Tox. 4, H302; Skin Irrit. 2, H315; Aquatic Chronic 3, H412	25-50%
CAS: 83242-95-9	CMPO	10-25%
EC number: 682-787-6	◆ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

Additional information: For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

#### After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Call for a doctor immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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## \* SECTION 5: Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **5.2 Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide (CO)

Phosphor oxydes

- **5.3 Advice for firefighters**

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

## \* SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

Particular danger of slipping on leaked/spilled product.

- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **6.3 Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Absorb liquid components with liquid-binding material.

Pick up mechanically.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## \* SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Provide suction extractors if dust is formed.

- **Information about fire - and explosion protection:** Keep respiratory protective device available.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:**

Keep container tightly sealed.

Protect from exposure to the light.

- **7.3 Specific end use(s)**

When the resin is to be packed in column, it is advised to let it wet in a 0.01M-0.1M HNO<sub>3</sub> solution for at least 1h before use.

Advised temperature of use: 20-25°C

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

- **8.1 Control parameters**

- **Additional information about design of technical facilities:** No further data; see item 7.

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· **Ingredients with limit values that require monitoring at the workplace:**

**126-73-8 tributyl phosphate**

WEL Short-term value: 5 mg/m<sup>3</sup>  
Long-term value: 5 mg/m<sup>3</sup>

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Do not eat, drink, smoke or sniff while working.

· **Respiratory protection:** Suitable respiratory protective device recommended.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Safety glasses

## \* SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

**Form:** Powder

**Colour:** White

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

**Melting point/freezing point:** Undetermined.

**Initial boiling point and boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Not determined.

· **Ignition temperature:** 427 °C

· **Decomposition temperature:** Not determined.

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· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure:</b>	Not applicable.
· <b>Density at 20 °C:</b>	0.37 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with water:</b>	Insoluble.
· <b>Particle size</b>	A: 100-150µm S: 50-100µm
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>9.2 Other information</b>	No further relevant information available.

### \* SECTION 10: Stability and reactivity

· <b>10.1 Reactivity</b>	No further relevant information available.
· <b>10.2 Chemical stability</b>	
· <b>Thermal decomposition / conditions to be avoided:</b>	No decomposition if used according to specifications.
· <b>10.3 Possibility of hazardous reactions</b>	Reacts with strong oxidising agents. Reacts with flammable substances. Toxic fumes may be released if heated above the decomposition point.
· <b>10.4 Conditions to avoid</b>	No further relevant information available.
· <b>10.5 Incompatible materials:</b>	No further relevant information available.

### SECTION 11: Toxicological information

· <b>11.1 Information on toxicological effects</b>
· <b>Acute toxicity</b> Based on available data, the classification criteria are not met.
· <b>LD/LC50 values relevant for classification:</b>

#### Acrylic copolymer

Oral LD50 >5000 mg/kg (rat)  
 Dermal LD50 >5000 mg/kg (rabbit)

#### 126-73-8 tributyl phosphate

Oral LD50 1552 mg/kg (rat)  
 Dermal LD50 >3100 mg/kg (rabbit)

#### 83242-95-9 CMPO

Oral LD50 >5000 mg/kg (rat)  
 Dermal LD50 >2000 mg/kg (rat)

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- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**  
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**  
**126-73-8 tributyl phosphate**  
EC50 1.1 mg/l (desmodesmus subspicatus) (72h)  
3.6 mg/l (Daphnia)
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential**  
**126-73-8 tributyl phosphate**  
BCF 21-35 (oryzias latipes)  
Bioaccumulation 38 (oryzias latipes)
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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## \* SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, ADN, IMDG, IATA** Void
- **14.2 UN proper shipping name**
- **ADR, ADN, IMDG, IATA** Void
- **14.3 Transport hazard class(es)**
- **ADR, ADN, IMDG, IATA**
- **Class** Void
- **14.4 Packing group**
- **ADR, IMDG, IATA** Void
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
- **14.6 Special precautions for user** Not applicable.
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.
- **UN "Model Regulation":** Void

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.  
H412 Harmful to aquatic life with long lasting effects.

- **Department issuing SDS:** Product safety department

- **Contact:** Aude Bombard

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Carc. 2: Carcinogenicity – Category 2

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STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· \* **Data compared to the previous version altered.**

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