

# SAFETY DATA SHEET

Conforms to 1907/2006 Annex II 2015/830 and 1272/2008

(All references to EU regulations and directives are abbreviated to the number designation only)

Issued 30/01/2020

Version number 1.0

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

### 1.1 Product identifier

Trade name	RFA-10
CAS no.	7550-45-0
EC no.	231-441-9
Index no.	022-001-00-5

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

Identified uses	Airflow detection in ventilation
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### 1.3 Details of the supplier of the safety data sheet

Company	AB Regin Box 116 42822 Kållerød, Sweden
Phone	+46 31 720 02 00
E-mail	info@regin.se

### 1.4 Emergency telephone number

In case of emergency: Call 112, request poison information.

## SECTION 2: Hazardous properties

### 2.1 Classification of the substance or mixture

Corrosive (Category 1B), H314

Irreversible effects on the eye (Category 1), H318

### 2.2 Label elements

Hazard pictograms



Signal word      Danger

Hazard statements

H314      Causes severe skin burns and eye damage

Precautionary statements

P260      Do not breathe dust/fume/gas/mist/vapours or spray

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

P301+P330+P331      IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353      IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with 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

P310      Immediately call a doctor

### Supplementary hazard information

EUH014 Reacts violently with water

## 2.3 Other hazards

Not indicated.

# SECTION 3: Composition/information on ingredients

## 3.1 Substances

Constituent	Classification	Concentration
<b>TITANIUM TETRACHLORIDE</b>		
CAS no.: 7550-45-0 EC no.: 231-441-9 Index no.: 022-001-00-5	Skin Corr 1B; EUH014, H314	99.9%

Classification and labelling of the ingredients is explained in Section 16e. Official abbreviations are written in normal font. Specifications and/or supplements used to calculate the classification of the mixture are written in italics, see Section 16b.

# SECTION 4: First aid measures

## 4.1 General description of first aid measures

In case of concern or if symptoms occur, seek medical attention.

Never give liquid or anything else by mouth to an unconscious person.

### Inhalation

Immediately move the injured person to fresh air. Administer artificial respiration if breathing has stopped. If the injured person is having difficulty breathing, oxygen should be administered by trained personnel. Rest the injured person in a warm place and seek prompt medical attention.

### Contact with eyes

If possible, remove contact lenses immediately.

Flush immediately with luke-warm water for 15-20 minutes with eyelids apart; immediately transport the injured person to hospital. Important: Continue flushing during transport to hospital (ophthalmologist).

### Contact with skin

Remove/take off contaminated clothing.

Rinse with plenty of water (emergency shower) and seek medical attention. Wash clothes before reusing.

### Ingestion

First rinse mouth thoroughly with plenty of water and SPIT out the rinse water. Then drink at least half a litre of water and seek medical attention. DO NOT induce VOMITING.

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

May cause chemical burns in the nose and throat if inhaled, as well as coughing and, following exposure to high concentrations, difficulty breathing.

### Contact with eyes

Causes serious eye damage.

### Contact with skin

May cause skin burns.

### Ingestion

Ingestion causes burns, nausea and vomiting, which may cause burns in the oesophagus.

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

Symptomatic treatment.

If medical attention is sought, show a label or this safety data sheet.

# SECTION 5: Firefighting measures

## 5.1 Extinguishing media Suitable extinguishing media

Extinguished with powder or carbon dioxide.

### **Unsuitable extinguishing media**

Do not extinguish with water.

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

On coming into contact with certain metals and moisture in the air, hydrogen gas is formed which may produce an explosive mixture.

The extinguishing agent may be highly corrosive.

In a fire, corrosive gases may spread.

Hydrogen chloride is formed during a fire.

In a fire, toxic metal oxides may spread.

### **5.3 Advice for firefighters**

When extinguishing a fire, whole-body clothing must be worn to protect against corrosive substances.

Wear a respirator mask in the fire area.

Safety measures should be taken regarding other materials at the site of the fire.

Cool closed containers that have been exposed to fire with water.

Contain and collect up the extinguishing agent.

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

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

Use the recommended safety equipment, see section 8.

Do not inhale and avoid contact with skin and eyes.

Note that the rinse water may be corrosive.

Make sure there is good ventilation.

Beware of slip hazards in the event of a leak/spill.

Wear a chemical protective suit for all rescue and decontamination work.

### **6.2 Environmental precautions**

Do not discharge into the sewer/drainage system, ground or watercourses.

In case of accidental release, contact the relevant authorities.

Do not allow the product to enter groundwater, watercourses or the sewer network.

### **6.3 Methods and materials for containment and decontamination**

Contact the emergency services to neutralise spills.

Show this safety data sheet.

Absorb the liquid in an inert absorbent, e.g. vermiculite, collect the material for disposal at a waste disposal facility.

Do NOT use water for decontamination.

### **6.4 Reference to other sections**

See Sections 8 and 13 for personal protective equipment and disposal.

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

### **7.1 Precautions for safe handling**

Keep this product away from food and out of reach of children and pets. Do not eat, drink or smoke in premises where this product is handled.

Observe the usual precautions when handling chemicals.

Avoid spillage, inhalation and contact with skin and eyes.

Handle in premises with good

ventilation.  
Beware of chemical burns.  
Store as a corrosive product.  
Wash hands after handling the product.  
Remove/take off contaminated clothing.  
Wash contaminated clothing before they are worn again. Do not mix with other products.  
Use the recommended safety equipment, see section 8. Keep separate from incompatible products.

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

Keep out of reach of children.  
Keep away from food and animal feed, including tools and surfaces that come into contact with them. Always use sealed and clearly labelled packaging.  
Store in a well-ventilated area, not above eye level.  
Store in well-sealed original packaging.  
Store in a cool, dry place (free from frost, but not above 30°C).  
Store the packaging in a plastic tray to prevent corrosion damage in the event of a spill.  
Do not store near incompatible materials (see Section 10.5).

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

See identified uses in Section 1.2.

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

### **8.1 Control parameters**

#### **8.1.1 National limit values**

Information on occupational exposure limits in accordance with AFS 2018:1 is not available for all ingredients (see Section 3).

#### **DNEL**

No data available.

#### **PNEC**

No data available.

### **8.2 Exposure controls**

Wash hands thoroughly after handling and before eating or smoking.  
Use work tools and methods that minimise skin contact.

#### **8.2.1 Appropriate engineering controls**

An emergency shower and eye-wash station must be available at the workplace.  
Handle in premises with modern ventilation standards.

#### **Eye/face protection**

Wear safety glasses, safety goggles or visor.

#### **Skin protection**

Protect all bare skin that may come into contact with the product.  
Wear protective gloves that meet the EN374 standard if there is a risk of direct contact.  
Wear protective gloves made of butyl rubber, Viton or fluoro rubber, or consult an occupational health expert for alternative material. Show this safety data sheet.  
Wear suitable full protective clothing.

#### **Respiratory protection**

Use suitable respiratory protective equipment where there is insufficient ventilation.

#### **8.2.3 Environmental exposure controls**

Work should be carried out such that the product is prevented from entering the ground and watercourse.

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

## 9.1 Information on basic physical and chemical properties

a) Physical state	Form: liquid. Colour: colourless.
b) Odour	Not indicated
c) Odour threshold	Not indicated
d) pH-value	Not indicated
e) Melting point/freezing point	-25 °C
f) Initial boiling point and boiling range	136 – 137 °C
g) Flash point	Not indicated
h) Evaporation rate	Not indicated
i) Flammability (solid, gas)	N/A
j) Upper/lower flammability or explosive limits	Not indicated
k) Vapour pressure	Not indicated
l) Vapour density	1.726 g/cm <sup>3</sup>
m) Relative density	Not indicated
n) Solubility	Not indicated
o) Partition coefficient: n-octanol/water	N/A
p) Auto-ignition temperature	Not indicated
q) Decomposition temperature	Not indicated
r) Viscosity	Not indicated
s) Explosive properties	N/A
t) Oxidising properties	N/A

## 9.2 Other information

No additional information available

# SECTION 10: Stability and reactivity

### 10.1 Reactivity

Reacts with metals to form hydrogen gas that can form an explosive gas mixture with air.

Reacts violently with water.

### 10.2 Chemical stability

The product is stable in normal conditions of storage and use.

### 10.3 Risk of hazardous reactions

Reacts with oxidising agents.

Reacts with water/moisture.

### 10.4 Conditions to avoid

Protect from humidity.

### 10.5 Incompatible materials

Avoid contact with alkalis.

Avoid contact with water.

Avoid contact with oxidising agents.

### 10.6 Hazardous decomposition products

Develops hydrogen gas in contact with certain metals.

# SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Information on possible adverse health effects is based on experience and/or toxicological properties of several components of the product.

#### Acute toxicity

The product is not classified as acutely toxic.

### TITANIUM TETRACHLORIDE

LD50 rabbit 24 hrs: 3160 mg/kg

Dermal LC50 rat 4 hrs: 0.46 mg/L

Inhalation

**Skin corrosion/irritation**

Causes severe skin burns.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Respiratory/skin sensitisation**

The product is not classified as sensitising.

**Germ cell mutagenicity**

The product is not classified as mutagenic.

**Carcinogenicity**

The product is not classified as carcinogenic.

**Reproductive toxicity**

The product is not classified as toxic to reproduction.

**Specific target organ toxicity – single exposure**

The criteria for classification cannot be considered fulfilled based on available data.

May cause irritation or chemical burns in the mouth, throat and/or respiratory tract if inhaled or ingested.

**Specific target organ toxicity – repeated exposure**

The criteria for classification cannot be considered fulfilled based on available data.

**Aspiration hazard**

The product is not classified as toxic to aspiration.

## SECTION 12: Ecological information

**12.1 Toxicity**

The product does not need to be labelled as environmentally hazardous. However, it has not been excluded that large-scale release, or repeated smaller-scale release, may have a damaging effect on the environment.

Avoid release into soil, water and sewer/drainage systems.

**12.2 Persistence and degradability**

No information on persistence and degradability available.

**12.3 Bioaccumulative potential**

This product or its ingredients do not accumulate in nature.

**12.4 Mobility in soil**

The product can be mixed with water and is therefore mobile in soil and water.

**12.5 Results of PBT and vPvB assessment**

A chemical safety report has not been prepared.

**12.6 Other adverse effects**

No information available.

## SECTION 13: Waste management

**13.1 Waste treatment methods Disposal of the product**

A product to be discarded must be disposed of as hazardous waste in accordance with current regulations.

Packaging that is not completely empty may contain residues of hazardous substances and must therefore be disposed of as hazardous waste as described above. Packaging that is completely empty can be sent for material recycling.

Avoid release into sewer/drainage systems.

Surplus, old or contaminated product must be disposed of to a waste treatment facility.

Observe local regulations.

See also the Waste Ordinance SFS 2011:927.

## SECTION 14: Transportation information

Unless otherwise specified, the information applies to all modes of transport in accordance with the UN modal regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea) and ICAO (IATA) (air).

**14.1 UN number**

1838

**14.2 UN proper shipping name**  
TITANIUM TETRACHLORIDE

**14.3 Transport hazard class**

**Class**

6.1: Toxic substances

**Classification code (ADR/RID)**

TC3 Toxic corrosive substances: Inorganic liquids

**Secondary hazard (IMDG)**

IMDG Class 8 (Corrosive substance)

**Labels**



**14.4 Packing group**

Packing group I

**14.5 Environmental hazards**

N/A

**14.6 Special precautions Tunnel restrictions**

Tunnel category: C/D

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

N/A

**14.8 Other transport information**

Transport category: 1; Maximum total quantity per transport unit 20 kg or litres

Stowage category D (IMDG)

Emergency schedules (EmS) for FIRE (IMDG) F-A

Emergency schedules (EmS) for SPILLS (IMDG) S-B

## SECTION 15: Applicable regulations

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

Not indicated.

**15.2 Chemical safety assessment**

A chemical safety assessment and report in accordance with 1907/2006 Annex I has not yet been performed.

## SECTION 16: Other information

**16a. Indication on where changes have been made to the previous version Revisions of this document**

This is the first version

**16b. Legend to abbreviations and acronyms used in the safety data sheet Full texts for hazard class and category code mentioned in Section 3**

Skin Corr 1B Corrosive (Category 1B)

**Explanation of the abbreviations in Section 14**

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

RID Regulations for the International Carriage of Dangerous Goods by Rail

IMDG The IMDG code (International Maritime Dangerous Goods Code)

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA International Air Transport Association

Tunnel restriction code: C/D; Tank carriage: Passage forbidden through tunnels of category C, D and E, Other carriage: Passage forbidden through tunnels of category D and E

Transport category: 1; Maximum total quantity per transport unit 20 kg or litres

### 16c. Key literature references and sources for data

#### Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 30-01-2020.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a third alternative, information was used from reputable international chemical industries, and as a fourth alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

#### Full texts for regulations mentioned in this safety data sheet

- 1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
- 2015/830 COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on the classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006
- AFS 2018:1 Swedish Work Environment Authority's provisions and general recommendations on occupational exposure limit values
- 2011:927 Waste Ordinance (SFS 2011:927)

### 16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

The hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

### 16e. A list of relevant hazard statements and precautionary statements Full texts for hazard statements according to GHS/CLP mentioned in Section 3

EUH014 Reacts violently with water

H314 Causes severe skin burns and eye damage

### 16f. Advice on any training appropriate for workers to ensure protection of human health and the environment Warning for misuse

This product may cause serious injury if used improperly. Read and follow the instructions carefully. Employers are responsible for ensuring that employees are familiar with the hazards in the workplace.

#### Other relevant information

Not indicated

#### Document details



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