Safety Information Sheet

This document must not be considered a Safety Data Sheet according to art. 31 of Regulation (EC) no. 1907/2006 (REACH)

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	**RUTHENIUM**
EC number	231-127-1
CAS number	7440-18-8

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

Intended use	Industrial use in the production of inorganic salts for electrodeposition or paste manufacturing, organometallic complexes for catalysis, and alloys in bulk and nano-dispersed forms. Industrial uses
Uses advised against	Uses other than those stated.

1.3. Details of the supplier of the Safety Information Sheet

Name	TCA Spa
Full address	Zona Ind. Castelluccio, 11
District and Country	52010 Capolona (AR) - ITALY
	Tel. +39 0575 3911
	Fax +39 0575 451337
e-mail address of the competent person	
responsible for the Safety information sheet	tcaspa@pec.tcaspa.com
	Serena Tavanti

1.4. Emergency telephone number

For urgent inquiries refer to	TCA Spa: Tel. +39 0575 3911

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: --

2.2. Label elements

Hazard pictograms:	--
Signal words:	--
Hazard statements:	--
Precautionary statements:	--

This product is not subject to hazard labeling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

2.3. Other hazards

The substance does not have persistence, bioaccumulation and toxicity (PBT) properties and is not very persistent and very bioaccumulative. (vPvB).
The substance does not have endocrine disrupting properties.

SECTION 3. Composition/information on ingredients

3.1. Substances

Contains:

Identification	Conc. %	Classification (EC) 1272/2008 (CLP)
RUTHENIUM		
INDEX -	99,9	Not classified
CE 231-127-1		
CAS 7440-18-8		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

No effects requiring implementation of special first aid measures are expected. The following information represents practical indications of correct behaviour in the event of contact with a chemical product, even if not hazardous.
In case of doubt or in the presence of symptoms contact a doctor and show him this document.
In case of more severe symptoms, ask for immediate medical aid.

Rescuer protection
It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

In the event of dust generation:
Acute effects
Inhalation: Inhalation of dust can cause irritation of the airways and nose, difficulty breathing, coughing.
Eyes: May cause eye irritation, redness.
Skin: May cause mild irritation to the skin from rubbing.

Chronic effects:
Long-term effects or repeated exposure to dust may include respiratory diseases.

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

Treat symptomatologically.
In the event of an accident or illness, consult a doctor immediately (if possible, show the instructions for use or the information sheet).

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The product is not combustible. Use extinguishing media suitable for the surrounding fire (mist water, foam, chemical dust, carbon dioxide).
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Fine sized metal shows catalytic effects and can accelerate combustion processes. Keep away from combustible material.
Keep away from combustible materials. Metal oxide/oxides.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel
Do not breathe dust in case of release. Avoid release of dust into the environment. Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety information sheet) to prevent any contamination of skin, eyes and personal clothing. Remove any source of ignition, provide adequate ventilation and control the dust. Follow the appropriate internal procedures for personnel not authorised to intervene directly in the event of an accidental release.

6.1.2 For emergency responders
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety information sheet) to prevent any contamination of skin, eyes and personal clothing. Follow the appropriate internal procedures for personnel authorised to intervene directly in the event of an accidental release.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect spilled product in suitable containers for recovery or disposal, using procedures that minimise the generation of dust in the air. Use explosion-proof equipment.
Do not breathe dust. Avoid release of dust (avoid cleaning dust from surfaces using compressed air). Clean the spillage area with a damp cloth.
Make sure the spillage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material information sheet. Avoid spillage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid all ignition sources (sparkles, flames). Avoid dust release. Provide adequate ventilation. Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe dust. Wash hands after use.

7.2. Conditions for safe storage, including any incompatibilities

Store the product in a well ventilated place, far from direct sunlight. Store away from food and drink. Keep the product in clearly labelled containers. Store in a separate and approved area. Keep the container tight and sealed until ready to use. Open containers should be carefully resealed and kept straight to prevent accidental product spillage. Do not store in unlabeled containers. Provide adequate containment systems to avoid environmental pollution.
Keep containers away from any incompatible materials, food or beverage, see section 10 for details. Eliminate all sources of ignition.

7.3. Specific end use(s)

No use other than that indicated in section 1.2 of this safety information sheet.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment. The above values are not TLVs, but guide values, to be used for particles that do not have their own TLV and that are insoluble or poorly soluble in water and have low toxicity.

8.2. Exposure controls

General working hygiene practices involves procedures (such as showering and changing clothes at the end of the work shift) to avoid any contamination of third parties and appropriate cleaning practices (such as regular cleaning, with appropriate cleaning devices), not eating and smoking at the workplace.
Personal protective equipment (PPE) must be CE marked, showing that it complies with applicable standards.
Only use PPE provided for the risk assessment for the specific use of the product. Choose the most suitable PPE after assessing the actual conditions of use of the product.
When choosing PPE, ask your technical equipment supplier for advice.
Make sure that the workplace is well aired through effective local aspiration, based on the specific use of the product.
Provide an emergency shower with face and eye wash station. Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage PPE so as to guarantee maximum protection (e.g. reduction in replacement times).
General PPE procedures:
Provide adequate personnel training for use.
Carry out an inspection of PPE to verify the integrity. Do not use damaged or deteriorated PPE.
Carry out the PPE inspection procedures laid down in the user manual.
Do not use PPE after its expiry date or outside the indications given in the technical data sheet/user manual.

Do not reuse single-use PPE.
PPE that is no longer usable must be disposed according to local applicable regulations.
If PPE is used in an explosive or potentially explosive atmosphere, check the compatibility for the usage.

HAND PROTECTION
When handling chemicals, chemical-resistant waterproof gloves complying with approved standards must always be worn (see standard EN 347)
Materials recommended: Nitrile rubber, NBR, Fluorocarbon rubber (Viton).
During manual welding of metals, cutting of metals and related processes: wear protective gloves for welders (see standard UNI EN 12477).
THERMAL HAZARDS
During hot work or exposure to thermal hazards, wear heat-resistant gloves (protective gloves against thermal and/or flame risks), category III (ref. standard EN 407).

SKIN PROTECTION
Before handling the product, select suitable personal protective equipment for the body the specific job and related risk assessment. Wear professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION
It is recommended to wear safety glasses complying with approved standards (see standard EN ISO 16321)

RESPIRATORY PROTECTION
If the worker is exposed to dust (during processing) use a respiratory protection with type P filter, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149).
The concentration of dust, the exposure, the time of exposure have to be evaluated into the risk assessment process.
The risk assessment must provide a PPE even in situations where exposure may not be perceived by the worker.
The choice of the suitable PPE must take into account the maximum concentration limit of the substance/mixture at which the filters guarantee worker protection and the maximum time of usage (see the PPE data sheet). If the filtering mask does not ensure worker protection, or does not ensure the correct time of usage for the specific activity or concentration of the substance/mixture in the air, the risk assessment outcome may provide to wear an open- or closed-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138).

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Emissions from production processes, including those from ventilation equipment, should be controlled for compliance with environmental protection legislation.
Emissions from ventilation equipment or work processes should be controlled to ensure that they are in accordance with the requirements of environmental protection legislation. In some cases, flue gas scrubbing will need to be performed, filters added, or technical modifications made to the process equipment to reduce the emission to acceptable levels.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	**Value**
Appearance	Solid.
Colour	Grey
Odour	Odourless
Melting point / freezing point	2334°C
Initial boiling point	4150°C
Flammability	Not flammable based on CLP criteria Residues, ash or carbonised substances left after a fire may have catalytic properties and again promote the ignition of flammable materials and vapours.
Lower explosive limit	Not applicable based on the physical state
Upper explosive limit	Not applicable based on the physical state
Flash point	Not applicable based on the physical state
Auto-ignition temperature	Not applicable – the substance does not auto-ignite
Decomposition temperature	Not applicable – the substance does not decompose
pH	Not applicable
Kinematic viscosity	Not applicable based on the physical state
Solubility	Insoluble in the following materials: cold water, hot water, methanol, diethyl ether, n-octanol and acetone.
Partition coefficient: n-octanol/water	Not applicable to inorganic substances
Vapour pressure	Not applicable based on the physical state

Density and/or relative density	12.1 g/cm³ at 20°C
Relative vapour density	Not applicable based on the physical state
Particle characteristics	Not applicable based on the physical state

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Information not available

9.2.2. Other safety characteristics
Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The material is supplied in a stable condition and, unlike the previously described hazards relating to the catalytic properties of this material, no specific reactive risks are known. The catalytic properties of this material can result in a low ignition temperature (except when it is supplied as a paste). Furthermore, the catalytic properties favor the oxidation and possible ignition of flammable liquids and vapors. The filtered catalysts used must, therefore, be kept moist and away from combustible vapours and liquids.

10.3. Possibility of hazardous reactions

Under normal storage and use conditions, no dangerous reactions occur.ù

10.4. Conditions to avoid

Avoid environmental dust build-up. Avoid overheating.

10.5. Incompatible materials

No information available

10.6. Hazardous decomposition products

Under normal storage and use conditions, no hazardous decomposition products should be generated.

SECTION 11. Toxicological information

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

Metabolism, toxicokinetics, mechanism of action and other information
Information not available

Information on likely routes of exposure
Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Information not available

Interactive effects
Information not available

ACUTE TOXICITY
ATE (Inhalation) of the mixture: not classified
ATE (Oral) of the mixture: not classified
ATE (Dermal) of the mixture: not classified
Based on the available data, the substance is not classified in this hazard class.

SKIN CORROSION / IRRITATION
Does not meet the classification criteria for this hazard class
Based on the available data, the substance is not classified in this hazard class.

SERIOUS EYE DAMAGE / IRRITATION
Does not meet the classification criteria for this hazard class
Based on the available data, the substance is not classified in this hazard class.

RESPIRATORY OR SKIN SENSITISATION
Does not meet the classification criteria for this hazard class
Based on the available data, the substance is not classified in this hazard class.

GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class
Based on the available data, the substance is not classified in this hazard class.

CARCINOGENICITY
Does not meet the classification criteria for this hazard class
Based on the available data, the substance is not classified in this hazard class.

REPRODUCTIVE TOXICITY
Does not meet the classification criteria for this hazard class
Based on the available data, the substance is not classified in this hazard class.

STOT - SINGLE EXPOSURE
Does not meet the classification criteria for this hazard class
Based on the available data, the substance does not exhibit specific target organ toxicity effects for single exposure and is not classified under the relevant CLP hazard class.

STOT - REPEATED EXPOSURE
Does not meet the classification criteria for this hazard class
Based on available data, the substance does not exhibit specific target organ toxicity effects from repeated exposure and is not classified under the relevant CLP hazard class.

ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class
There are no data available on the hazard in case of aspiration.

11.2. Information on other hazards

Based on the available data, the substance is not listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity
Ruthenium is an inorganic solid of low bioavailability and, based on the available information, does not fulfil the criteria for classification for acute or chronic aquatic toxicity under Regulation (EC) No 1272/2008 (CLP).

12.2. Persistence and degradability
Not applicable as inorganic substance.

12.3. Bioaccumulative potential
Information not available

12.4. Mobility in soil
Information not available

12.5. Results of PBT and vPvB assessment
The substance does not have persistence, bioaccumulation and toxicity (PBT) properties and is not very persistent and very bioaccumulative. (vPvB).

12.6. Endocrine disrupting properties
Based on the available data, the substance is not listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects
Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special non-hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. (Directive 2008/98/EC and subsequent amendments and adjustments and related national transpositions).
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
The legal responsibility for disposal is the producer / holder of the waste.
To this mixture different EWC codes could be applied (European Waste Code) based on the specific circumstances that generated the waste, possible alterations and / or possible contamination.
The product as such, contained in the original packaging, or decanted in an appropriate container for the purpose of disposal, or no longer usable (for example following an accidental spill), must be classified with a EWC code that is compatible with the description of the use indicated in section 1.2.
The suitable final destination of the waste must be evaluated by the manufacturer on the basis of the chemical-physical characteristics of the waste, the compatibility with the authorized facility to which it will be given for recovery, and the definitive treatment or disposal according to the procedures established by current regulations .
Disposal through wastewater discharge is not permitted.
Waste resulting from the use or spillage of this product must be managed in accordance with occupational safety regulations. Refer to section 8 for any required personal protective equipment.
For hazardous substances registered according to Regulation EC 1907/2006 (REACH), for which a chemical safety report has been drawn up, refer to the specific information contained in the exposure scenarios attached to this SDS.

CONTAMINATED PACKAGING
Contaminated packaging must be sent, properly labeled, to recovery or disposal in compliance with national waste management regulations and must be classified with the following EWC code:

15 01 01 : paper and cardboard packaging
15 01 02 : plastic packaging
15 01 03 : wooden packaging
15 01 04 : metallic packaging
15 01 05 : composite packaging
15 01 06 : mixed packaging
15 01 07 : glass packaging
15 01 09 : textile packaging

EMPTY PACKAGING
To assign a Chapter 15 Subchapter 01 (1501) code to the waste, it is necessary to determine whether the packaging/container is nominally empty. Citing what is contained in the European Commission Communication relating to the "Technical guidelines on waste classification" C/2018/1447 of 8th April 2018, and confirmed in the Sentence of the European Court of Justice n. 487/2019 and 489/2019, it is suggested to interpret the notion of "nominally empty" in the sense that the contents of the product have been effectively removed. Removal can be done via drainage or scraping. The fact that there is a minimal residue of the original content in packaging waste does not exclude the possibility of classifying this waste as 'nominally empty' and does not prohibit its assignment to subchapter 15 01 packaging waste.
A package can be considered completely emptied if in the event of a further emptying attempt, for example, due to its overturning, no more drops or solid residues are released.
Waste resulting from the use of the substance or mixture must be classified and managed by the following legal references to be considered in their updated version:

European legislation
Directive 2008/98/CE as amended
Commission Decision 2000/532/CE as amended
Regulation 2008/1272/CE as amended
Regulation 2008/440/CE as amended
Regulation (EU) 2019/1021 on persistent organic pollutants (POP) as amended
Regulation (EU) 2022/2400 amending Annexes IV and V to Regulation (EU) 2019/1021 on persistent organic pollutants

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number
Not applicable

14.2. UN proper shipping name
Not applicable

14.3. Transport hazard class(es)
Not applicable

14.4. Packing group
Not applicable

14.5. Environmental hazards
Not applicable

14.6. Special precautions for user
Not applicable

14.7. Maritime transport in bulk according to IMO instruments
Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU
None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
None

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
Not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Information not available

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the substance.

SECTION 16. Other information

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP

- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707
24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
26. Delegated Regulation (UE) 2024/197 (XXI Atp. CLP)
27. Delegated Regulation (UE) 2024/2564 (XXII Atp. CLP)
28. Regulation (EU) 2024/2865
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for the recipient of the Safety information Sheet (SIS):

The recipient of this SIS shall make sure of reading and understanding the information included by all people who handle, store, use, or otherwise come into contact in any way with the substance or mixture to which this SIS is referred to. In particular, the recipient shall provide adequate training to the personnel for the use of hazardous substances and/or mixtures. The recipient shall verify the suitability and completeness of the provided information according to the specific use of the substance or mixture.

However, the substance or mixture referred to by this SIS shall not be used for uses other than those specified in Section 1. The Supplier don't assume responsibility for improper uses. Since the use of the product does not fall under the direct control of the Supplier, the user shall, under his own responsibility, fulfill national and EU regulations concerning health and safety.

The information included in this SIS are provided in good faith and are based on the current state of scientific and technical knowledge, at the revision date indicated, available to the Supplier indicated in Section 1 of this SIS. It shall not be meant that the SIS is a guarantee of any specific property of the substance or mixture. The information concern only to the substance or mixture specifically designated in Section 1 and it could not be valid for the substance or mixture used in combination with other materials or in any process not specified in the text. This revision of the SIS replaces all previous versions.