



# Safety Data Sheet

According to Regulation (EC) 1907/2006/CE, Art. 31



Doc. N. CC-FF-SDS-2301 – Version No: 1

First issue date: 2023-12-01

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

### 1.1. Product identifier

· **Trade name** First-Flex OSR base model/ advanced model

1.2. Relevant identified uses of the substance or mixture and uses advised against Industrial use – passive thermal protection for aerospace vehicles

· **Products category** EuPCS Classification: PC-ADH-5\_ Products containing high-performance assembly adhesives and sealants such as aircraft and spacecraft.

· **Use of the Substance / Preparation** Adhesive sheet for the passive thermal protection of satellites / aerospace vehicles.

### 1.3. Producer / Supplier:

Consorzio C.R.E.O. – Centro Ricerche Elettro Ottiche  
ss.17 snc Loc. Boschetto,  
I-67100 L'Aquila (AQ), ITALY  
email: [info@consorziocreo.it](mailto:info@consorziocreo.it), Phone: +39-0862-346-1  
web: [www.consorziocreo.it](http://www.consorziocreo.it)

· **Information provided by:**

Consorzio C.R.E.O.  
email: [info@consorziocreo.it](mailto:info@consorziocreo.it), Phone: +39-0862-346-1

### 1.4. Emergency telephone numbers:

Main Italian Poison Control Centers (active 24 hours a day):  
Centro Antiveleni di Pavia 0382 24444 (CAV IRCCS Fondazione Maugeri – Pavia)  
Centro Antiveleni di Milano 02 66101029 (CAV Osp. Niguarda Ca' Granda Milano)  
Centro Antiveleni di Bergamo 800 883300 (CAV Osp. Riuniti – Bergamo)  
Centro Antiveleni di Firenze 055 79477819 (CAV Osp. Careggi – Firenze)  
Centro Antiveleni di Roma 06 3054343 (CAV Policlinico Gemelli – Roma)  
Centro Antiveleni di Roma 06 49978000 (CAV Policlinico Umberto I – Roma).

Company headquarter:  
Consorzio C.R.E.O. – Centro Ricerche Elettro Ottiche  
ss.17 snc Loc. Boschetto,  
I-67100 L'Aquila (AQ), ITALY  
Phone: +39 0862 346 1 (Mon.-Fri. 08:00-16:45) GMT+1

## 2. Hazards identification

### 2.1. Classification of the substance or mixture

· **Classification of the substance or mixture according to CLP n. 1272/2008** This product is not considered dangerous according to the provisions of Regulation (EC) n.1272/2008 (CLP).

### 2.2. Label elements

· **Labeling according to Regulation (EC) No. 1272/2008 (CLP)** The product is considered an article pursuant to Article 3 of Regulation (EC) No. 1907/2006 (REACH) and does not require labelling under article 1 of Regulation (EC) no. 1272/2008 (CLP).

For articles, such as this one, the provision of the Safety Data Sheet is not required pursuant to Article 31 of Regulation (EC) No. 1907/2006 (REACH).

**The provision of information in the form of a safety data sheet is on a voluntary basis.**

· **Hazard pictograms** Not present. Non-hazardous product.

· **Warnings** Not applicable.

· **Hazard statements** The product is not dangerous if used in accordance with the recommendations for use.

· **Precautionary statements** P202 Do not handle until you have read and understood all warnings.

P232 Protect from moisture.

P262 Avoid contact with eyes, skin and clothing.

P270 Do not eat, drink or smoke when using.



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## 2.3. Other hazards.

### · Results of PBT and vPvB assessment:

P273 Do not release into the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
The vapours released by combustion of the product can be dangerous.  
  
The product does not contain concentrations of substances that would classify it as persistent, bio-accumulative or toxic.

## 3. Composition / Information on ingredients

3.1. Substances: Not applicable. It is a product.

### 3.2. Mixture

#### · Description

Coating: CREO IC Coating  
Support: polyimide film  
Adhesive transfer tape: acrylic adhesive, paper liner  
Protective film: polyethylene

Name	CAS-no.	EC-no./ ECHA list-no.	REACH-no.	Content (wt.%)	Classification according to Regulation (CE) n. 1272/2008 (CLP)		
					Pictograms, warning codes	Hazard class and category codes	Hazard statement codes
Aluminium Oxide	90669-62-8	618-619-5	90669-62-8 In the pre-registration phase	4-5		H335	May cause respiratory irritation.
Acrylic adhesive tape	Trade secret of the supplier			20-30		H317	May cause allergic skin reaction.

#### Notes:

- (1) The specific chemical identity and/or exact percentage (concentration) of this composition has been kept secret. The substances classified as dangerous according to the ECHA database have been reported.
- (2) The above products are REACH compliant; Registration numbers may not be provided because the substance(s) are exempted, not yet registered under REACH or are registered under another regulatory process.

#### · SVHC

Free of SVHC substances or < 0,1%.

#### · Further indications

The wording of the listed hazard statements is given in section 16

## 4. First aid measures

### 4.1. Description of first aid measures

#### · General information:

No health effects are expected.

#### · Inhalation:

This product may have a characteristic odour; however, no adverse health effects are expected. As a precaution, it is suggested to evaluate the use of respiratory protection devices.

#### · Skin contact:

Rinse and then wash the skin with soap and water.

#### · Contact with eyes:

Rinse with eye solution or clean water, then consult a doctor.

#### · Ingestion:

Not applicable.

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

No health effects are expected

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

No other relevant information is available. If necessary, consult the poison control centre referred to in section 1.4.



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## 5. Firefighting measures

### 5.1. Extinguishing media

- **Suitable extinguishing media:** Use fire extinguishers with class B extinguishing agents (e.g. dry chemicals, carbon dioxide).
- **Unsuitable extinguishing media:** No other relevant information is available

### 5.1. Special hazards arising from the substance or mixture

In the event of a fire, toxic fumes that are harmful to human health may be released.

Do not breath.

### 5.2. Recommendations for fire extinguishers

- **Specific protective means:** Wear self-contained breathing apparatus with protective clothing against chemical agents.

Do not inhale gases resulting from explosions and fires.

## 6. Accidental release measures

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

In case of implementation of emergency procedures it is recommended to wear adequate protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of the skin, eyes and personal clothing;

### 6.2. Environmental precautions

Do not dispose of it in the environment.

### 6.3. Methods and materials for containment and clean-up:

Cover with inorganic adsorbent material. Collect as much of the spilled material as possible. Place in a container with a lid. Clean with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Follow the precautions indicated on the label or safety data sheet. Seal the container. Dispose of collected material as soon as possible.

### 6.4. Reference to other sections

- For information on safe handling, see Chapter 7.
- For information on personal protective equipment, see Chapter 8.
- For information on disposal, see Chapter 13.

## 7. Handling and storage

### 7.1. Precautions for safe handling

This product does not release or otherwise cause exposure to hazardous chemicals under normal conditions of use. It can be used exclusively for professional or industrial use. Do not handle until you have read and understood all warnings. Do not breathe dust/fumes/gas/mist/vapours/spray. Avoid contact with eyes, skin or clothing. Do not eat, drink or smoke during use. Wash after use. Do not dispose of it in the environment. Avoid contact with oxidizing agents (e.g. chlorines, acids). Use required personal protective equipment.

- **Information in case of fire and explosion** See section 5.



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

- **Storage:** Keep in a dry, cool place and away from heat sources. Store away from oxidizing agents, humidity, acids.
- **Warehouse and container requirements:** No special requirements are required. Store away from oxidizing agents, humidity, acids.
- **Information on mixed storage:** Not necessary
- **Further information regarding storage conditions:** None

## 7.3. Specific end use(s)

No other information available

## 8. Exposure controls / Personal protection

### 8.1. Control parameters

- **Components whose limit values must be kept under control in working environments** Not applicable.
- **Further information** Not applicable.

### 8.2. Exposure controls

- **Appropriate technical controls:** No further data, see section 7 to consult the precautionary conditions for handling the product.
- **Individual protection measures, such as personal protective equipment:**
  - **Respiratory protection:** Not necessary.
  - **Hands protection:** The use of hand protection devices is suggested during use.
  - **Eye / Face protection:** Not necessary.

## 9. Physical and Chemical properties

### 9.1. Information on basic physical and chemical properties – General information

- **Aspect** Adhesive foil.
- **Colour** Broad-spectrum mirroring surface in the visible optical range.
- **Odour** Almost odourless.
- **Melting / Freezing point** Not applicable.
- **Boiling point or initial boiling point and boiling range** Not applicable.
- **Flammability** Not applicable.
- **Explosive limits** Lower: undefined.  
Upper: undefined.
- **Flash point** Not applicable.
- **Decomposition temperature** Undefined.
- **PH** Not applicable.
- **Viscosity** Not applicable.
- **Solubility** Water: insoluble.



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- **Vapour tension** Not applicable.
- **Density and/or relative density** Not applicable.

#### 9.2. Further information

- **Aspect:** Broad-spectrum mirroring surface in the visible optical range.
- **Appearance:** Adhesive foil.
- **Important information on health and environmental protection and safety:**
  - **Auto-ignition temperature:** product not self-flammable.
  - **Explosive properties:** non-explosive product.
- **Information regarding physical hazard classes:**
  - Not applicable.

## 10. Stability and reactivity

**10.1. Reactivity** No other information available.

#### 10.2. Chemical stability

- **Thermal decomposition / conditions to avoid** The product does not decompose if used under correct conditions of use.

**10.3. Possibility of hazardous reactions** None known.

**10.4. Conditions to avoid** No other information available.

**10.5. Incompatible materials** No other information available.

**10.6. Hazardous decomposition products** None known.

## 11. Toxicological information

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

- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/skin irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitization** Based on available data, the classification criteria are not met
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met
- **Carcinogenicity** Based on available data, the classification criteria are not met
- **Reproductive toxicity** Based on available data, the classification criteria are not met
- **Specific target organ toxicity (STOT) – single exposure** Based on available data, the classification criteria are not met
- **Specific target organ toxicity (STOT) – repeated exposure** Based on available data, the classification criteria are not met
- **Danger in case of aspiration:** Based on available data, the classification criteria are not met

#### 11.2. Information about other hazards

- **Endocrine disrupting properties:** None known



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## 12. Ecological information

### 12.1. Toxicity

- **Aquatic toxicity** No special measures are required.

12.2. Persistence and degradability: No special measures are required.

12.3. Bio-accumulative potential: No special measures are required.

12.4. Mobility in soil: No special measures are required.

### 12.5. Results of PBT and vPvB assesment:

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

12.6. Endocrine disrupting properties The product does not contain substances with endocrine-disrupting properties.

### 12.7. Other adverse effects:

- **Further information on environmental matters:** No further information on environmental matters is provided.
- **Contains in accordance with the formulation the following heavy metals and compounds indicated in the EC Directive n 2006/11/EC**
  - **Further information** No heavy metals (Pb, Cd, Hg, Cr6+)
  - Free from polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs), in compliance with the RoHS directive.
- **Further information** According to current knowledge, no adverse effects are expected.

## 13. Disposal considerations

### 13.1. Waste treatment methods

- **Advice** The specific rules of the country, region and municipality in which the disposal will take place must be observed.  
For larger quantities to be disposed of, consult the competent authorities.
- **Advice** Disposal in accordance with administrative provisions.  
  
Emptied packaging can be disposed of in compliance with local/national regulations for waste disposal.

## 14. Transport information

### 14.1. UN number or ID

- **ADR, ADN, IMDG, IATA** Not applicable

### 14.2. UN proper shipping name

- **ADR, ADN, IMDG, IATA** Not applicable

### 14.3. Transport hazard class(es)

- **ADR, ADN, IMDG, IATA** Not applicable
- **Class(es)** Not applicable

### 14.4. Packing group

- **ADR, ADN, IMDG, IATA** Not applicable

### 14.5. Environmental hazards

- **Marine pollutant** No



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**14.6.** Special precautions for users      Not applicable

**14.1.** Maritime transport in bulk in accordance with IMO acts

- **Transport/Further information**      No products at risk according to the regulations indicated above
- **UN "Model Regulation**              Not applicable

These transportation classifications are provided as a service to the customer. As a freight forwarder, CUSTOMER remains responsible for compliance with all applicable laws and regulations, including proper transportation classification and packaging.

Transportation classifications are based on product formulation, packaging, CREO policies and CREO's understanding of current applicable regulations.

CREO does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not packaging, labelling or marking requirements.

**15. Regulatory information**

**15.1.** Health, safety and environmental laws and regulations specific for the substance or mixture

- **Directive 2012/18/EU Specified dangerous substances - ANNEX I**      None of the components are contained
- **Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II**      None of the components are contained
- **REGULATION (UE) 2019/1148**
  - **Annex I - PRECURSORS OF EXPLOSIVES SUBJECT TO RESTRICTIONS (Upper limit value for the purposes of granting licenses pursuant to Article 5, paragraph 3)**      None of the components are contained
  - **Annex II - PRECURSORS OF EXPLOSIVES SUBJECT TO REPORTING**      None of the components are contained
- **Regulation (EC) no. 273/2004 relating to drug precursors**      None of the components are contained
- **Regulation (EC) No 111/2005 laying down rules for the control of trade in drug precursors between the Community and third countries**      None of the components are contained
- **National provisions**      avoid
- **Further classification according to the Hazardous Substances Ordinance, Appendix II:**      none
- **Indications relating to the limitation of work activities**      none
- **Ordinance relating to interventions in the event of a breakdown**      none

**15.2.** Conditions for safe storage, including any incompatibilities

- **Storage:**      No special measures are required.
- **Warehouse and container requirements:**      No special requirements
- **Information on mixed storage:**      Not necessary
- **Further information relating to storage conditions:**      None

**15.3.** Chemical safety assessment:

A chemical safety assessment has not been carried out

**16. Other information**

**PLEASE NOTE**



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Trade name: First-Flex OSR

The information contained in this safety data sheet (SDS) is believed to be correct at the date of publication. CREO DOES NOT PROVIDE ANY WARRANTY, EXPRESS OR IMPLIED, of the specific properties of the product and do not motivate any contractual legal relationship.

You are responsible for determining whether the CREO product is suitable for a particular purpose. Given the variety of factors that can affect the use and application of a CREO product, some of which are unique within the user's knowledge and control, it is essential that the user evaluate the CREO product to determine whether is fit for a particular purpose and suited to the user's method of use or application.

Since the use of the product does not fall under our direct control, it is the user's obligation to observe the laws and regulations in force regarding hygiene and safety under his own responsibility. We do not assume responsibility for improper use.

CREO provides information in electronic format as a service to its customers. Because of the remote possibility that electronic transfer may result in errors, omissions, or alterations in this information, CREO makes no warranty as to its completeness or accuracy. Additionally, information obtained from a database may not be as current as the information contained in the SDS available directly from CREO.

This product (this group of products) is not a dangerous substance under the legislation currently in force.

The product is considered an article pursuant to Article 3 of Regulation (EC) No. 1907/2006 (REACH) and does not require labeling pursuant to article 1 of Regulation (EC) no. 1272/2008 (CLP). For articles, the provision of a safety data sheet is not required in accordance with Article 31 of Regulation (EC) No. 1907/2006 (REACH). The provision of information in the form of a safety data sheet is on a voluntary basis.

· <b>Classification according to Regulation (EC) No. 1272/2008:</b>	The classification of the mixture is generally based on the calculation method using the data of the substance pursuant to Regulation (EC) No. 1272/2008 updated according to EU Regulation No. 2020/878.
· <b>Issued by:</b>	Consorzio C.R.E.O. – Centro Ricerche Elettro Ottiche ss.17 snc Loc. Boschetto, I-67100 L'Aquila (AQ), ITALY
· <b>Interlocutor:</b>	Consorzio C.R.E.O. – Centro Ricerche Elettro Ottiche email: <a href="mailto:info@consorziocreo.it">info@consorziocreo.it</a> – tel: +39-0862-346-1
· <b>Previous version date:</b>	Not applicable.
· <b>Previous version number:</b>	Not applicable.
· <b>Abbreviations and acronyms:</b>	<b>ADR:</b> Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) <b>CREO:</b> Consorzio C.R.E.O. <b>IMDG:</b> International Maritime Code for Dangerous Goods <b>IATA:</b> International Air Transport Association <b>GHS:</b> Globally Harmonised System of Classification and Labelling of Chemicals <b>EINECS:</b> European Inventory of Existing Commercial Chemical Substances <b>ELINCS:</b> European List of Notified Chemical Substances <b>CAS:</b> Chemical Abstracts Service (division of the American Chemical Society) <b>PBT:</b> Persistent, Bioaccumulative and Toxic <b>SVHC:</b> Substances of Very High Concern





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**vPvB: very Persistent and very Bioaccumulative**

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(\*) Data modified compared to the previous version.

(\*\*) This sheet supersedes any previous edition.



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