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

1.1. Product identifier

Product name : ECOFREC TF 49

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

Recommended uses : Adhesive flux for the soldering of electronic components

1.3. Details of the supplier of the safety data sheet

: INVENTEC PERFORMANCE CHEMICALS SA
 20 rue de Bourgogne
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 69802 SAINT-PRIEST Cedex France
 Tel : +33 (0) 4 72 28 13 00
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 NEDERLAND: Van Konijnenburgweg 84 NL-4612PL Bergen op zoom- Tel : (31) 164 212 840

e-mail

: ContactFDS@inventec.dehon.com

1.4 Emergency telephone number

: EMERGENCY TELEPHONE NUMBER (24h/24) : + 33 (0) 1 72 11 00 03
 Anti-poison Center : INRS/ORFILA (France) : +33 (0) 1 45 42 59 59
 Anti-poison Centre (Belgium) : +32 70 245 245
 Anti-poison Centre (Netherlands) : +31 30 274 8888
 Anti-poison Centre (Spain) : +34 91 562 04 20
 Anti-poison Centre (United Kingdom) : +44 870 600 6266
 Poisons Information Centre (Hungary) : +36 80 201 199
 Anti-poison Centre (Switzerland) : 145 (from Switzerland) or +41 44 251 51 51

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Regulation (EC) No 1272/2008 (CLP)

Health hazards : Serious eye damage - Category 1 (Eye Dam. 1) - H318

2.2. Label elements

2.2.1 Labelling EC 1272/2008 (CLP)

Contains : 2-éthylhexane-1,3-diol

Hazard pictograms



Signal words : Danger

Hazard statements : H318 : Causes serious eye irritation

Precautionary statements :

- **Prevention** : P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- **Response** : P310 : Immediately call a POISON CENTER or doctor/physician

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SECTION 2 Hazards identification (continued)

2.3. Other hazards : None under normal conditions.

SECTION 3 Composition/information on ingredients

3.1./3.2. Substance / Preparation : Preparation

Components contributing to the hazard :

Substance name	Contents	CAS No	EC No	Index No	Ref REACH	Classification
Modified rosin	: 30 to 50 %	----	----	----	----	Not classified. (DSD/DPD) Not classified. (GHS)
2-ethylhexane-1,3-diol	: 20 to 50 %	94-96-2	202-377-9	603-087-00-9	----	Xi; R41 Eye Dam. 1;H318
Adipic acid	: < 5 %	124-04-9	204-673-3	607-144-00-9	----	Xi; R36 Eye Irrit. 2;H319
Reaction product of decanoic acid, 12-hydroxystearic acid and 1,2-ethanediamine	: < 5 %	----	907-495-0	----	01-2119545465-35	Not classified. (DSD/DPD) Not classified. (GHS)

SECTION 4 First aid measures
4.1. Description of first aid measures

Inhalation : Move the affected person to the fresh air

Skin contact : Wash immediately with plenty of soap and water
If case of redness or irritation, call a doctor

Eye contact : IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. Specific treatment.

Ingestion : Do not give anything to drink. Do not induce vomiting.
Rinse mouth out with water
Seek medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed : No information available

4.3. Indication of any immediate medical attention and special treatment needed : No information available

SECTION 5 Fire-fighting measures
5.1. Extinguishing media

Suitable extinguishing media : All extinguishing agents can be used

Unsuitable extinguishing media : None to our knowledge. If there is a fire close by, use suitable extinguishing agents

5.2. Special hazards arising from the substance or mixture

Specific hazards : May form flammable vapour-air mixture.

5.3. Advice for firefighters

Specific fire fighting methods : Cool down the containers exposed to heat with a water spray


Protection of fire-fighters : Complete protective clothing
Self-contained breathing apparatus
For further information refer to section 8 "Exposure controls/personal protection"

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SECTION 5 Fire-fighting measures (continued)

SECTION 6 Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures** : Avoid contact with skin and eyes
Personal protective equipment :
- self-contained breathing apparatus
- full impermeable protective equipment
- 6.2. Environmental precautions** : Contain the spilled material by bunding
Do not allow product to spread into the environment
Do not discharge into drains or rivers
- 6.3. Methods and material for containment and cleaning up**
- **Recovery** : Recover the product by scraping with a spatula or a similar instrument
Recover as much product as possible
 - **Cleaning/decontamination** : To clean the floor or objects contaminated by this product, use :
- Ethanol
- Isopropyl alcohol
 - **Disposal** : Dispose of contaminated materials in accordance with current regulations.
Do not discharge into drains
- 6.4 Reference to other sections** : For further information refer to section 8 "Exposure controls/personal protection"

SECTION 7 Handling and storage

- 7.1. Precautions for safe handling**
- Technical measures** : Vapour extraction at source
 - Precautions** : Work in a well-ventilated area
 - Industrial hygiene** : Wash hands thoroughly after handling.
Do not drink, eat or smoke in the workplace
- 7.2. Conditions for safe storage, including any incompatibilities**
- Technical measures** : Does not require any specific or particular technical measures
 - Storage conditions**
 - **Recommended** : Store :
- at room temperature
- protected from humidity
 - Incompatible products** : Strong oxidizing agents
Strong acids
 - Packaging materials**
 - **Recommended** : Polyethylene
Polypropylene
Glass
 - **Not suitable** : Aluminium and its alloys
Copper and its alloys
- 7.3. Specific end use(s)** : No information available

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SECTION 8 Exposure controls/personal protection
8.1. Control parameters
Engineering measures : Ensure good ventilation of the work station

8.1.1. Occupational Exposure Limits : Reaction product of decanoic acid,
 12-hydroxystearic acid and 1,2-ethanediamine : France : LEP - VME (8h; mg/m³) : 10
 Reaction product of decanoic acid,
 12-hydroxystearic acid and 1,2-ethanediamine : USA (ACGIH) : TLV - TWA (8h; mg/m³) : 10
 Adipic acid : Belgium : GWBB - TWA (8h; mg/m³) : 5

8.2. Exposure controls
Personal protection :

- **Respiratory protection** : If the ventilation is suitable, it is not essential to wear respiratory equipment
 In the event of insufficient ventilation:
 Mask with A canister
- **Hand protection** : Protective gloves made of latex
- **Eye protection** : Safety goggles
- **Skin protection** : Majority cotton clothing
- Collective emergency equipments :** : Safety shower
 Eye fountain

SECTION 9 Physical and chemical properties
9.1. Information on basic physical and chemical properties
9.1.a. Appearance

- Physical state** : Liquid
- Colour** : light yellow
- 9.1.b. Odour** : Characteristic
- 9.1.c. Odour threshold** : No information available
- 9.1.d. pH** : Not applicable
- 9.1.e. Melting point / Freezing point** : > 100 °C
- 9.1.f. Initial boiling point - boiling range** : > 200 °C
- 9.1.g. Flash point** : Not applicable
- 9.1.h. Evaporation rate** : No information available
- 9.1.i. Flammability** : Non flammable.
- 9.1.j. Explosion limits (lower - upper)** : Not applicable
- 9.1.k. Vapour pressure** : No information available
- 9.1.l. Vapour density** : No information available
- 9.1.m. Density** : ~ 1 g/cm³ at 20 °C
- 9.1.n. Solubility**
 - in water : Practically insoluble
 - in organic solvents : Miscible (in all proportions) with :
 - ketones
 - alcohols
- 9.1.o. Partition coefficient : n-octanol / water** : No information available
- 9.1.p. Auto-ignition temperature** : No information available

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SECTION 9 Physical and chemical properties (continued)

- 9.1.q. Thermal decomposition : No information available
9.1.r. Viscosity :
Dynamic viscosity : 300 - 500 Pa.s
9.1.s. Explosive Properties : Not explosive material according to EC criteria
9.1.t. Oxidising properties : Non oxidizing material according to EC criteria
9.2. Other information : -

SECTION 10 Stability and reactivity


- 10.1. Reactivity : No information available
10.2. Chemical stability : Stable at ambient temperature and under normal conditions of use
10.3. Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use
10.4. Conditions to avoid : No information available
10.5. Incompatible materials : Strong oxidizers
Strong acids
10.6. Hazardous decomposition products : On thermal decomposition (pyrolysis), releases :
Carbon oxydes (CO, CO₂)
Carboxylic acids
Aliphatic aldehydes

SECTION 11 Toxicological information

- 11.1. Information on toxicological effects
• Acute toxicity : No information available
• Skin corrosion/irritation : No information available
• Serious eye damage/irritation : Causes serious eye damage
• Respiratory or skin sensitisation : No information available
• Germ cell mutagenicity : No information available
• Carcinogenicity : No information available
• Reproductive toxicity : No information available
• STOT-single exposure : No information available
• STOT-repeated exposure : No information available
• Aspiration hazard : No information available
Other information : Fumes are irritating to the respiratory system

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SECTION 12 Ecological information

12.1. Toxicity	: No information available Do not allow product to spread into the environment
12.2. Persistence and degradability	: No information available
12.3. Bioaccumulative potential	: No information available
12.4. Mobility in soil	: No information available
12.5. Results of PBT and vPvB assessment	: No information available
12.6. Other adverse effects	: -

SECTION 13 Disposal considerations

13.1. Waste treatment methods	
WASTE FROM PRODUCT :	
Prohibition :	: Discharging into rivers and drains is forbidden Do not dispose of with domestic waste Land-fill is forbidden Do not bring to dump
Destruction/Disposal	: Dispose of at a licensed waste collection center
CONTAMINATED PACKAGING :	
Decontamination/cleaning	: Empty the packaging completely prior to disposal Entrust the thoroughly decontaminated packaging to a licensed waste-contractor
NOTE	: The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal

SECTION 14 Transport information

RID/ADR/IMDG/IATA	: Not regulated
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SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.


* Germany :	: WGK (Water-endangerment class) : 0
15.2. Chemical safety assessment	: No information available

SECTION 16 Other information

Further information	: Product for industrial use only For more information regarding the use of this product, please refer to our technical information or contact the sales department in your region This safety data sheet has been written in conformity with the regulation (UE) 453/2010.
Text of R-Phrases in § 3	: R36 : Irritating to eyes. R41 : Risk of serious damage to eyes.
Text of H-Phrases in § 3	: H318 - Causes serious eye damage H319 - Causes serious eye irritation
* Update	: Modifications are indicated by an asterisk (*)

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SECTION 16 Other information (continued)

This sheet complements the technical sheets but does not replace them. The information given is based on our knowledge of the product, at the time of publication. It is given in good faith.

Besides, the attention of the user is drawn to the possible risks incurred by using the product for any other use than that for which it was intended.

In no way does this exempt the user from knowing and applying all the regulations controlling his activity. He alone will take on the responsibility for taking the precautions involved by the use of the product.

The aim of all the mandatory regulations mentioned is just to help the user to fulfil his obligations regarding the use of hazardous products.

This information must not be considered exhaustive. It does not exempt the user from ensuring that other obligations than those mentioned could apply, related to the storage and use of the product, this being his sole responsibility.

End of document

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