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

1.1. Product identifier

Trade name : ECOFREC TF 40

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

1.2.1 Relevant identified 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
BP 211

69802 SAINT-PRIEST Cedex France

Tel : +33 (0) 4 72 28 13 00

Fax : +33 (0) 4 72 28 13 41

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 (Spain) : +34 91 562 04 20

Anti-poison Centre (Netherlands) : +31 30 274 8888

Anti-poison Centre (United Kingdom) : +44 870 600 6266

Poisons Information Centre (Hungary) : +36 80 201 199

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45 : Xi; R41

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s)



: Xi : Irritant

R Phrase(s)

: R41 : Risk of serious damage to eyes.

S Phrase(s)

: S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S39 : Wear eye/face protection.

2.3. Other hazards

: Slightly irritating to skin

No particular fire or explosion hazard

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SECTION 3 Composition/information on ingredients

- 3.1./3.2. Substance / Preparation : Preparation.
 Chemical nature : Thick preparation based on resin and organic diacids (1 to 3 %)
 Components contributing to the hazard :

Substance name	Contents	CAS No	EC No	Index No	Ref REACH	Classification
Modified rosin	< 50 %	----	----	----	----	Not classified. (DSD/DPD) Undefined. (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
Additive	< 5 %	----	907-495-0	----	01-2119545465-35	R52 Aquatic Chronic 3;H412
Adipic acid	1 to 2 %	124-04-9	204-673-3	607-144-00-9	----	Xi; R36 Eye Irrit. 2;H319

SECTION 4 First aid measures

4.1. Description of first aid measures

- Inhalation** : Move the affected person to the fresh air
Skin contact : Immediately rinse with plenty of water
Eye contact : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum)
 Consult an eye specialist immediately
Ingestion : Rinse mouth out with water
 Never attempt to induce vomiting
 Call a doctor immediately
 If possible show him this sheet. Failing this, show him the packaging or label

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

5.2. Special hazards arising from the substance or mixture


- Specific hazards** : May form flammable vapour-air mixture.
Specific fire fighting methods : Do not dispose of fire-fighting water in the environment
 Do not breathe fumes
 Cool down the containers exposed to heat with a water spray
 Do not attempt to fight the fire without suitable protective equipment

5.3. Advice for firefighters

Protection of fire-fighters : Complete protective clothing
 Self-contained breathing apparatus

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SECTION 6 Accidental release measures


- 6.1. Personal precautions, protective equipment and emergency procedures** : Avoid contact with skin and eyes
- 6.2. Environmental precautions** : Do not allow product to spread into the environment
- 6.3. Methods and material for containment and cleaning up**
- **Cleaning/decontamination** : To clean the floor or objects contaminated by this product, use :
 - Isopropyl alcohol
 - Ethanol
 - **Recovery** : Recover as much product as possible
Recover the product by scraping with a spatula or with a similar instrument
 - **Disposal** : For disposal of contaminated materials refer to section 13 : "Disposal considerations"
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
Do not handle with bare hands
- Industrial hygiene** : Always wash your hands immediately after handling this product, and once again before leaving the workplace
Do not eat, drink or smoke during use
- 7.2. Conditions for safe storage, including any incompatibilities**
- Storage conditions**
- **Recommended** : Store :
 - protected from humidity
 - at room temperature
- Incompatible products** : Strong acids
Strong oxidizing agents
- Packaging materials**
- **Recommended** : Polypropylene
Polyethylene
Glass
 - **Not suitable** : Aluminium and its alloys
Copper and its alloys
- 7.3. Specific end use(s)** : No data

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SECTION 8 Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational Exposure Limits : Additive : France : LEP - VME (8h; mg/m³) : 10
Additive : 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 : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.
In the event of exposure to high concentrations : Mask with A canister
- Hand protection : Butyl-rubber protective gloves
- Skin protection : Protective clothing
- Eye protection : Safety spectacles with side shields
- 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 : Paste
- Colour : amber
- 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
- 9.1.f. Initial boiling point - boiling range : > 200 °C
- 9.1.g. Flash point : > 100°C
- 9.1.h. Evaporation rate : No information available
- 9.1.i. Flammability : No information available
- 9.1.j. Explosion limits (lower - upper) : No information available
- 9.1.k. Vapour pressure : No information available
- 9.1.l. Vapour density : No information available
- 9.1.m. Density : 1 kg/dm³
- 9.1.n. Solubility
- in water : Practically insoluble
- in organic solvents : Miscible (in all proportions) with :
- alcohols
- ketones

9.1.o. Partition coefficient : n-octanol / water : No information available

9.1.p. Auto-ignition temperature : No information available


9.1.q. Thermal decomposition : No information available

9.1.r. Viscosity

Dynamic viscosity : 400-600 Pa.s

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SECTION 9 Physical and chemical properties (continued)

- 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 data
10.2. Chemical stability : Stable at room temperature
10.3. Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use
10.4. Conditions to avoid : Refer to the technical directions
10.5. Incompatible materials : No information available
10.6. Hazardous decomposition products : On thermal decomposition (pyrolysis), releases :
Carbon oxides (CO, CO₂)
Carboxylic acids

SECTION 11 Toxicological information

- 11.1. Information on toxicological effects
- Acute toxicity : No information available
- On ingredients
- Adipic acid : Rat oral LD50 [mg/kg] : 5560
: Rat inhalation LC50 [mg/l/4h] : 7.7
- Additive : Rat inhalation LC50 [mg/l/4h] : 5.1
: Rat dermal LD50 [mg/kg] : 2000
: Rat oral LD50 [mg/kg] : 2000
- 2-ethylhexane-1,3-diol : Rat oral LD50 [mg/kg] : 5170
: Rabbit dermal LD50 [mg/kg] : 8939
- Irritation : Risk of serious damage to eyes
Slightly irritating to the skin
Fumes are irritating to the respiratory system
 - Corrosivity : No information available
 - Sensitisation : No information available
 - Repeated dose toxicity : No information available
 - Carcinogenicity : No information available
 - Mutagenicity : No information available
 - Toxicity for reproduction : No information available
- Other information : May cause eczema

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ECOFREC TF 40**102854****SECTION 12 Ecological information**

- 12.1. Toxicity** : No specific data
Do not allow the product, as is, to spread into the environment
- Effects on the aquatic environment**
- On ingredients**
- Adipic acid** : 48 Hour - EC50 - Daphnia magna [mg/l] : 85.7
: 72 Hours - EC50 - Algae [mg/l] : 31.3 (Desmodesmus subspicatus)
: 96 Hours - LC50 - Fish [mg/l] : 230 (Leuciscus idus melanotus)
- Additive** : 48 Hour - EC50 - Daphnia magna [mg/l] : 94.9
: 72 Hours - EC50 - Algae (Pseudokirchneriella subcapitata) [mg/l] : 43.2
: 96 Hours - LC50 - Fish (Oncorhynchus mykiss) [mg/l] : > 100
- 2-ethylhexane-1,3-diol** : 24 Hours - EC50 - Daphnia magna [mg/l] : 811
- 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** : No information available

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
- Destruction/Disposal** : Dispose of at a licensed waste collection center
- CONTAMINATED PACKAGING :**
- Decontamination/cleaning** : Empty the packaging completely prior to disposal
- Destruction/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
- NOTE** : The above regulatory prescriptions are those valid on the date of publication of this sheet
However, given the possible evolution of transport regulations for hazardous materials, in case the present sheet is dating back to more than 12 months ago, it would be advisable to check their validity with your commercial agency

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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.

France : Professional diseases(table(s) nr 66, 84) : applicable

US : NFPA Hazard Rating :

- Reactivity : 0
- Flammability : 0
- Health : 2

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.
 R52 : Harmful to aquatic organisms.

Text of H-Phrases in § 3 : H318 - Causes serious eye damage
 H319 - Causes serious eye irritation
 H412 - Harmful to aquatic life with long lasting effects

*** Update** : All chapters have been modified since the previous version

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.

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