



Safety Data Sheet according to (EC) No 1907/2006

Page 1 of 9

425-01 REWORK FLUX

sds no. : 175144
V004.1

Revision: 30.04.2012
printing date: 26.07.2012

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

1.1. Product identifier

425-01 REWORK FLUX

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

Intended use:
Rework flux

1.3. Details of the supplier of the safety data sheet

Henkel Ireland Limited
Product Safety & Regulatory Affairs
Tallaght Business Park, Whitestown
Dublin 24

Ireland

Phone: +353 (14046444)

Fax-no.: +353 (14519926)

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (DPD):

Xn - Harmful

R22 Harmful if swallowed.

Xi - Irritant

R36 Irritating to eyes.

2.2. Label elements

Label elements (DPD):

Xn - Harmful

**Risk phrases:**

R22 Harmful if swallowed.
R36 Irritating to eyes.

Safety phrases:

S25 Avoid contact with eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Additional information:

Avoid breathing fumes given out during soldering.
Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma).
Keep out of reach of children.

Contains:

2-phenoxyethanol

2.3. Other hazards

This product contains modified rosin.

SECTION 3: Composition/information on ingredients**Declaration of the ingredients according to CLP (EC) No 1272/2008:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2-phenoxyethanol 122-99-6	204-589-7 01-2119488943-21	50- 60 %	Serious eye irritation 2 H319 Acute toxicity 4; Oral H302
2-(2-phenoxyethoxy)ethanol 104-68-7	203-227-5	5- 10 %	No data available.

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2-phenoxyethanol 122-99-6	204-589-7 01-2119488943-21	50 - 60 %	Xi - Irritant; R36 Xn - Harmful; R22
2-(2-phenoxyethoxy)ethanol 104-68-7	203-227-5	5 - 10 %	Xi - Irritant; R36

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Immediately wash skin thoroughly with soap and water.
Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:

Do not induce vomiting.
Seek medical advice.

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

INGESTION: Nausea, vomiting, diarrhoea, abdominal pain.

EYE: Irritation, conjunctivitis.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x) can be released.
In case of fire, keep containers cool with water spray.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Wipe up using absorbent material.
Keep in suitable and closed containers for disposal.

6.4. Reference to other sections

See advice in chapter 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use only in well-ventilated areas.
Wear suitable protective clothing, safety glasses and gloves.

Hygiene measures:

Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated place.

7.3. Specific end use(s)

Rework flux

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Valid for
Great Britain

None

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2-Phenoxyethanol 122-99-6	aqua (freshwater)					0,943 mg/L	
2-Phenoxyethanol 122-99-6	aqua (marine water)					0,094 mg/L	
2-Phenoxyethanol 122-99-6	aqua (intermittent releases)					3,44 mg/L	
2-Phenoxyethanol 122-99-6	STP					24,8 mg/L	
2-Phenoxyethanol 122-99-6	sediment (freshwater)				7,2366 mg/kg		
2-Phenoxyethanol 122-99-6	sediment (marine water)				0,7237 mg/kg		
2-Phenoxyethanol 122-99-6	soil				1,26 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2-Phenoxyethanol 122-99-6	general population	oral	Long term exposure - systemic effects		17,43 mg/kg bw/day	
2-Phenoxyethanol 122-99-6	worker	dermal	Long term exposure - systemic effects		34,72 mg/kg	
2-Phenoxyethanol 122-99-6	worker	inhalation	Long term exposure - systemic effects		8,07 mg/m3	
2-Phenoxyethanol 122-99-6	worker	inhalation	Long term exposure - local effects		8,07 mg/m3	
2-Phenoxyethanol 122-99-6	general population	dermal	Long term exposure - local effects		20,83 mg/kg bw/day	
2-Phenoxyethanol 122-99-6	general population	inhalation	Long term exposure - local effects		2,5 mg/m3	
2-Phenoxyethanol 122-99-6	general population	inhalation	Acute/short term exposure - local effects		2,5 mg/m3	
2-Phenoxyethanol 122-99-6	general population	oral	Acute/short term exposure - systemic effects		17,43 mg/kg bw/day	

8.2. Exposure controls:

Engineering controls:

- Ensure adequate ventilation, especially in confined areas.
- Extraction is necessary to remove fumes evolved during reflow.

Respiratory protection:

- In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection:

- Chemical-resistant protective gloves (EN 374).
- Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
 - nitrile rubber (NBR; ≥ 0.4 mm thickness)
- Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
 - nitrile rubber (NBR; ≥ 0.4 mm thickness)
- This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

- Wear protective glasses.

Skin protection:

- Wear suitable protective clothing.

Advices to personal protection equipment:

- Avoid skin-contact.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	paste
	light brown
Odor	mild
Appearance	paste
	light brown
Odor	mild
pH	Not determined
Initial boiling point	187 °C (368.6 °F)
Flash point	121 °C (249.8 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density	1,0 g/cm ³
()	
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative)	Insoluble
Solidification temperature	No data available / Not applicable
Melting point	Not determined
Flammability	No data available / Not applicable
Auto-ignition temperature	500 °C (932 °F)
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reaction with strong oxidants.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

No decomposition if stored and applied as directed.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****General toxicological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:

Harmful if swallowed.
May cause irritation to the digestive tract.
May cause nausea, vomiting and abdominal pain.

Inhalative toxicity:

Fumes evolved at soldering temperatures will irritate the nose, throat and lungs. Prolonged or repeated exposure to flux fumes may result in sensitisation in sensitive workers.

Skin irritation:

Prolonged or repeated contact may cause skin irritation.

Eye irritation:

Irritating to eyes.
Fumes emitted during soldering may irritate the eyes.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-phenoxyethanol 122-99-6	LD50 LD50	1.386 mg/kg > 2.000 mg/kg	oral dermal		rat rabbit	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-phenoxyethanol 122-99-6	negative negative negative	in vitro mammalian chromosome aberration test bacterial reverse mutation assay (e.g. Ames test) in vitro mammalian chromosome aberration test	with with and without without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2-phenoxyethanol 122-99-6	negative	oral: unspecified		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

SECTION 12: Ecological information**General ecological information:**

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Ecotoxicity:

Do not empty into drains / surface water / ground water.

Persistence and Biodegradability:

The product is not biodegradable.

Bioaccumulative potential:

No data available.

12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
2-phenoxyethanol 122-99-6	LC50	250 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 201 (Alga, Growth Inhibition Test) OECD Guideline 203 (Fish, Acute Toxicity Test) OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) OECD Guideline 201 (Alga, Growth Inhibition Test)
2-phenoxyethanol 122-99-6	EC50	295 mg/l	Daphnia	24 h	Daphnia magna	
2-phenoxyethanol 122-99-6	EC50	443 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	
2-(2-phenoxyethoxy)ethanol 104-68-7	LC50	> 100 mg/l	Fish	96 h	Leuciscus idus	
2-(2-phenoxyethoxy)ethanol 104-68-7	EC50	> 500 mg/l	Daphnia	48 h	Daphnia magna	
2-(2-phenoxyethoxy)ethanol 104-68-7	EC50	> 100 mg/l	Algae	72 h		

12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
2-phenoxyethanol 122-99-6	readily biodegradable	aerobic	96 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
2-phenoxyethanol 122-99-6	1,1					
2-(2-phenoxyethoxy)ethanol 104-68-7	0,83					

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product disposal:

Dispose of as hazardous waste in compliance with local and national regulations.
Incineration under controlled conditions is recommended.

Disposal of uncleaned packages:

Dispose of as unused product.

Waste code

16 05 08 - discarded organic chemicals consisting of or containing dangerous substances

SECTION 14: Transport information**General information:**

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content < 3 %
(1999/13/EC)

National regulations/information (Great Britain):

Remarks

The Health & Safety at Work Act 1974.
The Control of Substances Hazardous to Health Regulations. L5:General
Approved Code of Practice to the COSHH Regulations. HS(G)97:A Step by Step
Guide to the COSHH Regulations. HS(G)193: COSHH essentials: Easy steps to
control chemicals.
IND (G)248L:Solder fume and you. IND(G)249L:Controlling health risks from
rosin (colophony) based solder fluxes.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

R22 Harmful if swallowed.
R36 Irritating to eyes.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is
intended to describe our products from the point of view of safety requirements and is not intended to guarantee any
particular properties.