



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

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MCF800 FLUX CLEANER 1 GAL

SDS No. : 175159
V004.6

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

1.1. Product identifier

MCF800 FLUX CLEANER 1 GAL

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

Intended use:

Cleaner

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000

Fax-no.: +44 1442 278071

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 (CLP):

Serious eye irritation

H319 Causes serious eye irritation.

Category 2

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Signal word:

Warning

Hazard statement:

H319 Causes serious eye irritation.

Precautionary statement: P261 Avoid breathing vapours.
Prevention

Precautionary statement: P337+P313 If eye irritation persists: Get medical advice/attention.
Response

2.3. Other hazards
None if used properly.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2-(2-Butoxyethoxy)ethanol 112-34-5	203-961-6 01-2119475104-44	80- 100 %	Eye Irrit. 2 H319
1-(1-Methyl-2-propoxyethoxy)propan-2-ol 29911-27-1	249-949-4	5- 10 %	
(2-Methoxymethylethoxy)propanol 34590-94-8	252-104-2 01-2119450011-60	1- 10 %	

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 Detergent Regulation 648/2004/EC

> 30 % aliphatic hydrocarbons

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

EYE: Irritation, conjunctivitis.

Prolonged or repeated contact may cause skin irritation.

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:

Carbon dioxide, foam, powder
Water

5.2. Special hazards arising from the substance or mixture

Danger of decomposition if exposed to heat.

May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.

See section 10.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

In case of fire, keep containers cool with water spray.

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 section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

See advice in section 8

Do not spray onto flame or red-hot objects.

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 sealed original container.

Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Cleaner

SECTION 8: Exposure controls/personal protection

8.1. Control parameters**Occupational Exposure Limits**Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	15	101,2	Short Term Exposure Limit (STEL):		EH40 WEL
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	10	67,5	Time Weighted Average (TWA):		EH40 WEL
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	10	67,5	Time Weighted Average (TWA):	Indicative	ECLTV
2-(2-Butoxyethoxy)ethanol 112-34-5 [2-(2-BUTOXYETHOXY)ETHANOL]	15	101,2	Short Term Exposure Limit (STEL):	Indicative	ECLTV
(2-Methoxymethylethoxy)propanol 34590-94-8 [(2-METHOXYMETHYLETHOXY)PROPANOL]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
(2-Methoxymethylethoxy)propanol 34590-94-8 [(2-METHOXYMETHYLETHOXY)PROPANOL]	50	308	Time Weighted Average (TWA):		EH40 WEL
(2-Methoxymethylethoxy)propanol 34590-94-8 [(2-METHOXYMETHYLETHOXY)-PROPANOL]	50	308	Time Weighted Average (TWA):	Indicative	ECLTV

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2-(2-Butoxyethoxy)ethanol 112-34-5	aqua (freshwater)					1 mg/L	
2-(2-Butoxyethoxy)ethanol 112-34-5	aqua (marine water)					0,1 mg/L	
2-(2-Butoxyethoxy)ethanol 112-34-5	aqua (intermittent releases)					3,9 mg/L	
2-(2-Butoxyethoxy)ethanol 112-34-5	sediment (freshwater)				4 mg/kg		
2-(2-Butoxyethoxy)ethanol 112-34-5	sediment (marine water)				0,4 mg/kg		
2-(2-Butoxyethoxy)ethanol 112-34-5	STP					200 mg/L	
2-(2-Butoxyethoxy)ethanol 112-34-5	oral				56 mg/kg		
2-(2-Butoxyethoxy)ethanol 112-34-5	soil				0,4 mg/kg		
(2-Methoxymethylethoxy)propanol 34590-94-8	aqua (freshwater)					19 mg/L	
(2-Methoxymethylethoxy)propanol 34590-94-8	aqua (marine water)					1,9 mg/L	
(2-Methoxymethylethoxy)propanol 34590-94-8	STP					4168 mg/L	
(2-Methoxymethylethoxy)propanol 34590-94-8	sediment (freshwater)				70,2 mg/kg		
(2-Methoxymethylethoxy)propanol 34590-94-8	sediment (marine water)				7,02 mg/kg		
(2-Methoxymethylethoxy)propanol 34590-94-8	soil				2,74 mg/kg		
(2-Methoxymethylethoxy)propanol 34590-94-8	aqua (intermittent releases)					190 mg/L	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2-(2-Butoxyethoxy)ethanol 112-34-5	Workers	Inhalation	Long term exposure - systemic effects		67,5 mg/m ³	
2-(2-Butoxyethoxy)ethanol 112-34-5	Workers	Dermal	Long term exposure - systemic effects		20 mg/kg bw/day	
2-(2-Butoxyethoxy)ethanol 112-34-5	general population	Inhalation	Acute/short term exposure - local effects		60,7 mg/m ³	
2-(2-Butoxyethoxy)ethanol 112-34-5	general population	Inhalation	Long term exposure - systemic effects		40,5 mg/m ³	
2-(2-Butoxyethoxy)ethanol 112-34-5	general population	Dermal	Long term exposure - systemic effects		50 mg/kg bw/day	
2-(2-Butoxyethoxy)ethanol 112-34-5	Workers	Inhalation	Acute/short term exposure - local effects		101,2 mg/m ³	
2-(2-Butoxyethoxy)ethanol 112-34-5	Workers	Inhalation	Long term exposure - local effects		67,5 mg/m ³	
2-(2-Butoxyethoxy)ethanol 112-34-5	general population	oral	Long term exposure - systemic effects		5 mg/kg bw/day	
2-(2-Butoxyethoxy)ethanol 112-34-5	general population	Inhalation	Long term exposure - local effects		40,5 mg/m ³	
(2-Methoxymethylethoxy)propanol 34590-94-8	Workers	Inhalation	Long term exposure - systemic effects		310 mg/m ³	
(2-Methoxymethylethoxy)propanol 34590-94-8	Workers	Dermal	Long term exposure - systemic effects		65 mg/kg	
(2-Methoxymethylethoxy)propanol 34590-94-8	general population	oral	Long term exposure - systemic effects		1,67 mg/kg	
(2-Methoxymethylethoxy)propanol 34590-94-8	general population	Inhalation	Long term exposure - systemic effects		37,2 mg/m ³	
(2-Methoxymethylethoxy)propanol 34590-94-8	general population	Dermal	Long term exposure - systemic effects		15 mg/kg	

Biological Exposure Indices:
None**8.2. Exposure controls:**

Engineering controls:

Ensure adequate ventilation, especially in confined areas.

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Suitable respiratory protection:

Filter type: A

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; \geq 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; \geq 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:

Goggles which can be tightly sealed.

and/or

facial protection

Skin protection:

Protective clothing that covers arms and legs.

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

Appearance	clear colourless
Odor	characteristic
Odour threshold	No data available / Not applicable
pH (20 °C (68 °F); Solvent: Water)	4 - 6
Initial boiling point	184,0 °C (363.2 °F)
Flash point	103 - 110 °C (217.4 - 230 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (20 °C (68 °F))	< 0,1 mbar
Density (20 °C (68 °F))	0,94 - 0,96 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) (20 °C (68 °F); Solvent: Water)	Soluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	225,0 °C (437 °F)
Explosive limits	
lower	0,85 %(V)
upper	24,6 %(V)
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	Heavier than air
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.
Reaction with strong bases

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Danger of decomposition if exposed to heat.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors.
May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.
See section 5.

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

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Inhalative toxicity:

Inhalation of vapors in high concentration may cause irritation of respiratory system
Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Due to the low volatility of the product there are no hazards associated with inhalation under normal conditions of use

Skin irritation:

slightly irritating, does not require labeling.

Eye irritation:

Irritating to eyes.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-(2-Butoxyethoxy)ethanol 112-34-5	LD50	> 2.000 mg/kg	oral		rat	EU Method B.1 (Acute Toxicity (Oral))
1-(1-Methyl-2-propoxyethoxy)propan-2-ol 29911-27-1	LD50	> 2.000 mg/kg	oral		rat	
(2-Methoxymethylethoxy)propanol 34590-94-8	LD50	8.740 mg/kg	oral		rat	

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
(2-Methoxymethylethoxy)propanol 34590-94-8	LC50	55 - 60 mg/l		4 h	rat	

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-(2- Butoxyethoxy)ethanol 112-34-5	LD50	2.800 mg/kg	dermal		rabbit	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2-(2- Butoxyethoxy)ethanol 112-34-5	not irritating		rabbit	Draize Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
2-(2- Butoxyethoxy)ethanol 112-34-5	moderately irritating		rabbit	

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
2-(2- Butoxyethoxy)ethanol 112-34-5	not sensitising	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method
1-(1-Methyl-2- propoxyethoxy)propan-2- ol 29911-27-1	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-(2- Butoxyethoxy)ethanol 112-34-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
(2- Methoxymethylethoxy)pr opanol 34590-94-8	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Ames Test

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
2-(2- Butoxyethoxy)ethanol 112-34-5	LOAEL=51 - 65 mg/kg	oral: gavage	90 days5 days/week	rat	
2-(2- Butoxyethoxy)ethanol 112-34-5	NOAEL=< 50 mg/kg	oral: gavage	90 days5 days/week	rat	
2-(2- Butoxyethoxy)ethanol 112-34-5	NOAEL=2 - 6 ppm	inhalation	90 days	rat	
2-(2- Butoxyethoxy)ethanol 112-34-5	NOAEL=> 2.000 mg/kg		13 weeks6 hours/day, 5 days/week	rat	
(2- Methoxymethylethoxy)pr opanol 34590-94-8	LOAEL=140 ppm	inhalation	2 weeks (9 exposures)6 hours/day; 5 days/week	rabbit	
(2- Methoxymethylethoxy)pr opanol 34590-94-8	NOAEL=> 50 mg/l	inhalation	2 weeks (9 exposures)6 hours/day; 5 days/week	rabbit	

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

If used properly the product does not enter the drains.

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity**Ecotoxicity:**

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

No data available for the product.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
2-(2-Butoxyethoxy)ethanol 112-34-5	LC50	1.300 mg/l	Fish	96 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
2-(2-Butoxyethoxy)ethanol 112-34-5	EC50	3.300 mg/l	Daphnia	24 h	Daphnia magna	
2-(2-Butoxyethoxy)ethanol 112-34-5	EC50	> 100 mg/l	Algae	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	> 100 mg/l	Algae	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
1-(1-Methyl-2- propoxyethoxy)propan-2-ol 29911-27-1	LC50	> 100 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
1-(1-Methyl-2- propoxyethoxy)propan-2-ol 29911-27-1	EC50	> 100 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1-(1-Methyl-2- propoxyethoxy)propan-2-ol 29911-27-1	EC50	> 1.000 mg/l	Algae	96 h	Pseudokirchnerella subcapitata (reported as Selenastrum capricornutum)	OECD Guideline 201 (Alga, Growth Inhibition Test)
(2- Methoxymethylethoxy)propan ol 34590-94-8	LC50	> 1.000 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	
(2- Methoxymethylethoxy)propan ol 34590-94-8	EC50	> 1.000 mg/l	Daphnia	24 h	Daphnia magna	
(2- Methoxymethylethoxy)propan ol 34590-94-8	NOEC	> 0,5 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

12.2. Persistence and degradability

Persistence and Biodegradability:

Readily degradable.

Persistence and degradability:

Degradation of surfactants

The product does not contain surface-active substances as defined in the EU Detergent Regulation (EC/648/2004).

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
2-(2-Butoxyethoxy)ethanol 112-34-5	readily biodegradable	aerobic	> 60 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
1-(1-Methyl-2- propoxyethoxy)propan-2-ol 29911-27-1	readily biodegradable	no data	92 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)
(2- Methoxymethylethoxy)propan ol 34590-94-8	readily biodegradable	aerobic	75 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:

No data available.

Bioaccumulative potential:

Does not bioaccumulate.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
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2-(2-Butoxyethoxy)ethanol 112-34-5	0,56					
1-(1-Methyl-2-propoxyethoxy)propan-2-ol 29911-27-1	0,87					OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
2-(2-Butoxyethoxy)ethanol 112-34-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
(2-Methoxymethylethoxy)propanol 34590-94-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

Collection and delivery to recycling enterprise or other registered elimination institution.

Use packages for recycling only when totally empty.

Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Recommended cleaning agents

Water, if necessary with added cleaning agent.

Waste code

14 06 03 - other solvents and solvent mixtures

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

- 14.1. UN number**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.2. UN proper shipping name**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.3. Transport hazard class(es)**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.4. Packaging group**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.5. Environmental hazards**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.6. Special precautions for user**
Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
not applicable

SECTION 15: Regulatory information

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

VOC content 5 %
(1999/13/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

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.
Chemicals (Hazard Information & Packaging for Supply) Regulations.

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:

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.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.