FLUXCLEAN NO.5
Code: HLF20

Safety Data Sheet compliant with Regulation (EU) 2020/878

Version 7.0.0
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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: FLUXCLEAN NO.5

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

Use of the product

ACID LIQUID
Food Industry - Membrane Cleaning
Fluxclean No. 5 is a concentrated acidic liquid detergent designed for Microfiltration, Ultrafiltration and Reverse Osmosis cross flow membranes.

1.3. Details of the supplier of the safety data sheet

Company identification

Out of hours Emergency Telephone Number +44 (0) 1865 407333
UK - Holchem Laboratories Ltd. Gateway House, Pilsworth Road, Bury, BL9 8RD
Tel : +44 (0) 1706 222288; e-mail info@holchem.co.uk

EU - HYPRED SAS
55, Boulevard Jules Verger B.P 10180
35803 DINARD Cedex - FRANCE
Tél : +33 (0)2 99 16 50 00
Fax : +33 (0)2 99 16 50 20
e-mail : kersia@kersia-group.com

For information regarding this safety data sheet, please contact :
regulatory@kersia-group.com

1.4. Emergency telephone number

Emergency phone number

Emergency direct number (24 hours a day, 7 days a week) : +44 1273 289451

CARECHEM 24 Great Britain
Tel. +44 1865 407333

NHS : 111

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The mixture meets the classification criteria provided for under Regulation (EC) No 1272/2008.

	EUH 071: Corrosive to the respiratory tract.
Substance corrosive to metals - Category 1	H290: May be corrosive to metals.
Skin corrosion - Category 1A	H314: Causes severe skin burns and eye damage.
Serious damage to eyes - Category 1	H318: Causes serious eye damage.
Acute toxicity - Category 3 (inhalation)	H331: Toxic if inhaled.

2.2. Label elements

Labelling according to 1272/2008/EC Regulation:

Hazard pictograms(s) :

Signal word :
Danger

Contains : Nitric acid

Hazard statement(s) :
H290: May be corrosive to metals.
H314: Causes severe skin burns and eye damage.
H331: Toxic if inhaled.
EUH 071: Corrosive to the respiratory tract.

Precautionary statement(s) :
P260: Do not breathe mist/vapours/spray.
P264: Wash affected area thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P303 + P361 + P353 + P310: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
P304+P340+P310: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.Immediately call a POISON CENTER or doctor/physician.

P305 + P351 + P338 + P310: 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/physician.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

The mixture does not contain substance of "Very high Concern" (SVHC) in the candidate list of substances for Autorisation published and updated regularly by ECHA in concentration greater than 0.1%.
The mixture does not contains any substance responding to criteria for classification as PBT or vPvB in accordance with Annex XIII of Regulation (EC) No 1907/2006.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable as this involves a mixture.

3.2. Mixtures

Chemical nature of the mixture : ACID LIQUID

Substance(s)	CAS number(s)	EINECS number(s)	index	Classification according to Regulation (EC) 1272/2008	SCL M-factor ATE	Type
25% <= Nitric acid < 30%	7697-37-2	231-714-2	007-030-00-3	Ox. Liq. 2 H272 Skin Corr. 1A H314 Met. Corr. 1 H290 Acute Tox. 3 (inhalation) H331 EUH 071	C ≥ 65% Ox. Liq. 3 H272 5% ≤ C < 20% Skin Corr. 1B H314 LC 50 - inhalation - 4h : 2 65 mg/L	(1) (2)
1% <= Citric acid monohydrate < 5%	5949-29-1	201-069-1	607-750-00-3	Eye Irrit. 2 H319 STOT SE 3 H335		(1)
1% <= Benzenesulphonic acid, C10-13 alkyl-4 sec derivatives < 3%	85536-14-7	287-494-3		Acute Tox. 4 (oral) H302 Skin Corr. 1C H314 Eye Dam. 1 H318 Aquatic Chronic 3 H412		(1)

Type
(1) : Substance classified as hazardous for health and/or the environment
(2) : Substance with an exposure limit at the work station.
Substance of very high concern candidate for the authorisation procedure:
(3) : Substance considered as PBT (persistent, bioaccumulable, toxic)
(4) : Substance considered as vPvB (very persistent, very bioaccumulable)
(5) : Substance considered as carcinogenic category 1A
(6) : Substance considered as carcinogenic category 1B
(7) : Substance considered as mutagenic category 1A
(8) : Substance considered as mutagenic category 1B

(9) : Substance considered as reprotoxic category 1A
(10) : Substance considered as reprotoxic category 1B
(11) : Substance considered as endocrine disrupter
(12) : Other substance considered hazardous to health or the environment
(N) : Nanomaterial

Full text of H- and EUH- phrases : see section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General indications:
Take the contaminated clothes and shoes off immediately. Wash them before wearing them again.
In case of faintness , get medical advice/attention. Show this safety data sheet to the doctor.

In the event of inhalation :
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.Immediately call a POISON CENTER or doctor/physician.
Put into practice respiratory help procedure if needed and get medical advice immediately.

In the event of contact with the skin :
Take off immediately all contaminated clothing.
Wash immediately with plenty of water for 15 minutes at least.
Immediately call a POISON CENTER or doctor/physician.

In the event of contact with the eyes :
Immediately consult an ophtalmologist, even in the absence of apparent damages.
Remove contact lenses if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.

In the event of ingestion :
Rinse mouth.
Do NOT induce vomiting.
Call a POISON CENTER or doctor/physician.

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

Skin contact : Corrosive : Causes severe burns.

Eye contact : Causes serious eye damage.

Ingestion : Causes severe burns in mouth and digestive tract.

Inhalation : Corrosive to the respiratory tract.

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

Treatments : Symptomatic treatment

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media :
Foam resisting to alcohol.
Carbone dioxide (CO_2).
Sprayed water or water mist.
ABC multi-purpose powders

Unsuitable extinguishing media :
High pressure water jet

5.2. Special hazards arising from the substance or mixture

FLUXCLEAN NO.5 is non-flammable.
The thermal decomposition can release/form:
Corrosive vapours

5.3. Advice for firefighters

Wear independent respiratory equipment and protective suit.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel :

Respect protective measures presented at heading 8.
Evacuate non-essential staff and those not equipped with individual protection apparatus.

6.1.2. For emergency responders :

Evacuate the personnel to a safe location.
Keep people upwind and away from the location of the flow/leak.
Use personal protection equipment.

6.2. Environmental precautions

Intervention limited to trained staff.
Do not discharge the product directly to sewer or to environment.
Take as soon as possible all incompatible materials away.
Informing the authorities if the product penetrates in the sewers or in the waters of the public domain.

6.3. Methods and material for containment and cleaning up

Small spillage :

Absorb with an inert, non-combustible absorbent material, such as sand, earth, vermiculite or diatomaceous earth.

Large spillage :
Never return spills in original containers for re-use.
Keep in suitable, properly labelled and closed containers for disposal.
Mark out, soak up with an inert absorbant and pump in an emergency tank.

6.4. Reference to other sections

Respect protective measures presented at heading 8.
Refer to section 13 for the elimination.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Do not eat, drink or smoke in work area. Avoid projections during use.
Wear suitable protective clothing.
Avoid contact with skin, eyes and clothing.
Take off immediately all contaminated clothing.
Do not breathe mist/vapours/spray.
Operate in a well ventilated place.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Storage :

Keep in a clean, cool and well-ventilated place away from sources of heat and intense light.
Keep only in the original container.
Keep container closed.
Do not store below the point of freezing.
Store at a temperature not exceeding 40°C.
Keep away from incompatible matters (see heading 10).

7.2.2. Packaging or wrapping materials :

High density polyethylene recommended.

7.3. Specific end use(s)

No other recommendation.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limit values :

Substance	CAS number	Country	Type	Value	Unit	Comments	source
Nitric acid	7697-37-2	GBR	OEL Short term	1	ppm		International limit values for chemical agents
				2,6	mg/m³		International limit values for chemical agents

8.2. Exposure controls

According to the requirements of Directive 98/24 /EC, the employer is required to conduct a risk assessment and implement appropriate risks management measures.
* For any situation where the absence of risk is not proven, he must consider the substitution or reduction of risk by improving in priority processes used and collective protection measures. The effectiveness of the solutions implemented will be checked by measurement in comparison to the statutory limit values for substances defined in Section 8.1.
* If the risk remains after these corrective actions, he must always check by routinely measuring compliance with regulatory OEL if they exist in section 8.1 and apply all the individual protective measures given in section 8.2.
* When formalized risk assessment indicates a low risk to workers' health, control of compliance with regulatory OEL may not be considered and all individual protection measures is not always mandatory.

8.2.1. Appropriate engineering controls :

Ensure adequate ventilation.
Apply the necessary technical measures to comply with the professional exposure limit values.

8.2.2. Individual protection measures, such as personal protective equipment :

Eye/face protection :
Use safety glasses or facial screen in conformity with the EN 166 standard.

Hand protection :
Use chemical resistant gloves approved to EN 374.
Examples of prefered materials for insulating gloves:
Permeation time >= 480 min
Rubber chloroprene (CR).
Natural rubber.
Fluorinated rubber (Viton)
Butyl rubber.
PVC
Thickness: > 0.5 mm

Skin protection :
Wear protective clothing conforms to the standards EN 13034 - type 6

Respiratory protection :
In the event of weak exposure or of short duration, to use a respiratory filter.
Filtration type B-P
P2: Particles, solid aerosols and liquids
It is possible to combine the anti-vapor filters and anti-aerosols.
In the event of intense or durable exposure, to use an apparatus of breathing independent of the ambient air.

Thermal hazards :
Not applicable

Health measures :
Safety shower and eye wash fountain near to workplace.
After using, wash systematically all personal protective equipment.
Handle in accordance with good industrial hygiene practices and the safety instructions.

8.2.3. Environmental exposure controls :
Do not discharge the product directly to sewer or to environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid
Colour	Colourless to pale yellow
Odour	Pungent acidic
Odour threshold	Not available
Freezing point	Not available
Melting point	Not applicable
Boiling point	> 80 °C
Flammability	Not applicable
Lower explosive limit	Not applicable
upper explosive limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
pH value at 10g/l	1 - 2
Pure pH	< 1
kinematic viscosity	Not available
Solubility	Soluble in water in all proportions
Partition coefficient: n-octanol/water	Not available
Vapour pressure	Not available
Mass density	1.2±0.06 g/cm³

Relative density	1.2±0.06
Vapour density	Not available
Particle characteristics	Not applicable

9.2. Other information

Explosive properties	Not applicable
Oxidising properties	Not applicable
Evaporation rate:	Not available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable in the recommended storage and handling conditions.

10.2. Chemical stability

Stable in the recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

Reaction with sodium hypochlorite
Exothermic reactions with alkalis.

10.4. Conditions to avoid

Excessive heat (>50°C)

10.5. Incompatible materials

Sodium hypochlorite
Strong oxidizing agents.
Alkalines.
Certain metals.

10.6. Hazardous decomposition products

In contact with certain metals (aluminium, zinc, copper...), release of hydrogen whose mixtures with air are explosive.

These data are given for the concentrated mixture. The use of the mixture under its diluted form must be performed in conformity with data given by the technical data sheet and the technical adviser.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) N°1272/2008

Substance-related data:

Acute toxicity
Nitric acid : LC 50 - inhalation - 4h rat (OECD 403): 2.65 mg/L. - vapour - MSDS supplier
Benzenesulphonic acid, C10-13 alkyl-4 sec derivatives : LD 50 - oral rat 1,470 mg/kg. - MSDS supplier

Serious damage to eyes/eye irritation
Citric acid monohydrate (92%) : Serious damage to eyes/eye irritation . Irritating to eyes. - MSDS supplier

Mutagenicity
Nitric acid (58%) : . Not mutagenic - MSDS supplier

Carcinogenicity
Nitric acid (58%) : . Not carcinogenic - MSDS supplier

Mix-related data: :

Acute toxicity
. Toxic if inhaled.

Skin corrosion/irritation
Skin corrosivity . The mix is considered to be corrosive for the skin under the criteria of Regulation 1272/2008/EC.

Serious damage to eyes/eye irritation
Ocular corrosivity . Causes serious eye damage according to the criteria of Regulation 1272/2008/EC.

Respiratory / skin sensitisation
Skin sensitisation . The mixture is not considered as a skin sensitiser according to 1272/2008/EC Regulation.
Respiratory sensitisation . The mixture is not considered as a respiratory sensitiser according to 1272/2008/EC Regulation.

Mutagenicity
. The classification criteria are not met given the available data.

Carcinogenicity
. The classification criteria are not met given the available data.

Reproductive toxicity
. The classification criteria are not met given the available data.

Specific target organ toxicity - single exposure
. The classification criteria are not met given the available data.

Specific target organ toxicity - repeated exposure
. The classification criteria are not met given the available data.

Aspiration hazard
. The classification criteria are not met given the available data.

Most important symptoms and effects, both acute and delayed :

Skin contact : Corrosive : Causes severe burns.

Eye contact : Causes serious eye damage.

Ingestion : Causes severe burns in mouth and digestive tract.

Inhalation : Corrosive to the respiratory tract.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Not concerned

SECTION 12: ECOLOGICAL INFORMATION

12.1. à 12.4. Toxicity - Persistence and degradability - Bioaccumulative potential - Mobility in soil

Substance-related data:

Acute toxicity
Nitric acid (100%) : LC 50 - 96h fishes > 100 mg/L. - MSDS supplier
Benzenesulphonic acid, C10-13 alkyl-4 sec derivatives (100%) : Biodegradability - 28days (OECD 301 A): 994% . - MSDS supplier

Degradability
Benzenesulphonic acid, C10-13 alkyl-4 sec derivatives : Biodegradability - 28day(s) > 60 %. Easily biodegradable. - MSDS supplier

Mix-related data: :

Acute toxicity
fishes . No data available.
daphnia . No data available.
algae . No data available.

Chronic toxicity
. No data available.

Degradability
. The surface agents contained in this mix are in line with the requirements of the Detergent Regulation 648/2004/EC.

Bioaccumulation
. No data available.

Mobility
. No data available.

Conclusion :
The mixture is not considered to be dangerous for the environment according to 1272/2008/EC Regulation.

12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB

12.6 Endocrine disrupting properties

Not concerned

12.7. Other adverse effects

No additional information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Treatment of the mixture :
Do not discharge the product directly to sewer or to environment.
Comply with Directive 2008/98/EC of 19/11/2008 amended, relating to waste and to Decision 2000/532/EC (amended ultimately by Decision 2014/955/EC) that establishes a list of hazardous waste that must be taken to an approved centre.

Packaging treatment :
Rinse thoroughly the packaging with water and treat the effluent like wastes.
Comply with Directive 2008/98/EC of 19/11/2008 amended, relating to waste and to Decision 2000/532/EC (amended ultimately by Decision 2014/955/EC) that establishes a list of hazardous waste that must be taken to an approved centre.

SECTION 14: TRANSPORT INFORMATION

ROAD TRANSPORT: Rail/Route (RID/ADR)

14.1 UN number or ID number : 3264

14.2 UN proper shipping name :
CORROSIVE LIQUID, ACIDIC,INORGANIC , N.O.S. (Nitric acid)

14.3 Transport hazard class(es) : 8

14.4 Packing group : II
Hazard identification number : 80
Label : 8

Tunnel code : (E)

14.5 Environmental hazards : No

14.6 Special precautions for user : No information.

Limited Quantity (QL): 1L

MARITIME TRANSPORT : IMDG

14.1 UN number or ID number :3264

14.2 UN proper shipping name : CORROSIVE LIQUID, ACIDIC,INORGANIC , N.O.S. (Nitric acid)

14.3 Transport hazard class(es) : 8

14.4 Packing group : II

14.5 Environmental hazards
Marine pollutant : No

14.6 Special precautions for user : No information.
EmS number : F-A,S-B

Limited Quantity (QL): 1L

14.7 Maritime transport in bulk according to IMO instruments : Not concerned

SECTION 15: REGULATORY INFORMATION

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

Regulation (EU) n°528/2012 concerning the making available on the market and use of biocidal products :
Not concerned

Regulations relating to the hazards from major accidents :
SEVESO 3 Directive (2012/18/EC) : H2

Regulations relating to the classification, packaging and labelling of substances and mixtures :
Regulation (EC) 1272/2008 amended.

Waste regulations :
2008/98/EC Directive amended by 2015/1127/EC Directive - Regulation 1357/2014/EC
Decision 2014/955/EC which establishes the list of hazardous waste.

Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals : Not concerned

Protection of workers :
Directive 98/24/EC of 07/04/1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EU) 2019/1021 of 20 June 2019 on persistent organic pollutants : Not applicable

Regulation (EC) 1005/2009 amended on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors:
Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

Regulation (EC) 648/2004 :
In conformity with the regulation in force on detergents: Regulation (EC) N° 648/2004.
Ingredient datasheet for the medical staff is available upon written request.
Contains :
< 5% Non-ionic surfactants

Comply with national and local legislation.

UN Globally Harmonised System (GHS) on Classification and Labelling of Chemical (GB CLP - SI 2020 No. 1567) and UK REACH (SI 2020 No. 1577)

15.2. Chemical safety assessment

This safety data sheet has been drafted taking into account the information from exposure scenarios for the substances making up the mixture.

SECTION 16: OTHER INFORMATION

The safety data sheet is additional to the technical data sheet but does not replace it. The information given here in is to the best of our knowledge correct and is given in good faith. We must also draw the user's attention on potential risks of the product is used for other purposes for which the product is known.
In no way does it exempt users from being aware of and complying with regulations applicable to their activity. It is their sole responsibility to take all necessary precautions in accordance to the usage of the product they are aware of.
Regulations are only stated in order to help users fulfill the duties involved in the use of the product.
This description should not be considered as exhaustive. It does not exempt users from ensuring if other demands need to be complied with-according to other laws than the ones hereby stated and applicable to holding and usage of the product-demands for which they will remain sole responsibility.

Section(s) modified compared with the previous version :
Not concerned

List of H phrases referred to in section 3 :
EUH 071 : Corrosive to the respiratory tract.
H272 : May intensify fire; oxidiser.
H290 : May be corrosive to metals.
H302 : Harmful if swallowed.
H314 : Causes severe skin burns and eye damage.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.

H331 : Toxic if inhaled.
H335 : May cause respiratory irritation.
H412 : Harmful to aquatic life with long lasting effects.

Sources of key data used to compile the data sheet :
MSDS supplier

Historical :
Version 7.0.0
Cancels and replaces previous version .