

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Product Form	: Mixture
Product Name	: Sludge and Flux Remover XP-3
Product Code	: XP-3
Type of Product	: Aqueous mixture based on: non-ionic surfactant, flocculant, chelating agent
Product Group	: Blend

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

1.2.1 Relevant identified uses

Industrial/Professional Use Spec	: Industrial For professional use only
Use of the substance/mixture	: Central heating system cleaner

1.2.2 Uses advised against

No additional information available

1.3 Details of the supplier of the safety data sheet

Expert Range
Old Bank, The Triangle, Poulton,
BS32 7LE Bristol – United Kingdom
T: 0044 2036 273720 – F: 0044 8727 433720
support@expertrange.co.uk – www.expertrange.co.uk

1.4 Emergency telephone number

Emergency number : 0044 2036 273720

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral)	: H302
Eye Irrit. 2	: H319
Full text of H-phrases	: See section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

O; R8	
Xn; R22	
Xi; R36	
Full text of H-phrases	: See Section 16

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. Causes serious eye irritation.

2.2 Label Elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

: GHS07



Signal word (CLP)

: Warning

Hazardous ingredients

: Tetrasodium ethylene diamine tetraacetate; sodium nitrite

Hazard statements (CLP)

: H302 - Harmful if swallowed
H319 - Causes serious eye irritation

Precautionary statements (CLP)

: P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear eye protection, protective gloves
P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P330 - Rinse mouth
P337+P313 - If eye irritation persists: Get medical advice/attention
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

EUH phrases

: EUH210 – Safety data sheet available on request

2.3 Other Hazards

No additional information available

Section 3: Composition/Information on Ingredients

3.1 Substances

Not applicable

3.2 Mixture

Name	Product Identifier	%	Classification According to Directive 67/548/EEC	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Tetrasodium Ethylene Diamine Tetraacetate	(CAS No) 64-02-8 (EC no) 200-573-9 (EC index no) 607-428-00-2	3 – 10	Xn; R22 Xi; R41	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Sodium Carbonate	(CAS No) 497-19-8 (EC no) 207-838-8 (EC index no) 011-005-00-2	1 - 3	Xi; R36	Eye Irrit. 2, H319
Sodium Nitrite	(CAS No) 7632-00-0 (EC no) 231-555-9 (EC index no) 007-010-00-4	1 - 3	O; R8 T; R25 N; R50	Ox. Sol. 3, H272 Acute Tox. 3 (Oral), H301 Aquatic Acute 1, H400
Aryl Ether Phosphate Ester, Potassium Salt	(CAS No) 72283-31-9	0.1 - 1	Xi; R36/38	Skin Irrit. 2, H315 Eye Irrit. 2, H319
Sodium Hydroxide, Caustic Soda	(CAS No) 1310-73-2 (EC no) 215-185-5 (EC index no) 011-002-00-6	< 1	C; R35	Met. Corr. 1, H290 Skin Corr. 1A, H314
Trisodium Nitrilotriacetate	(CAS No) 5064-31-3 (EC no) 225-768-6 (EC index no) 607-620-00-6	< 1	Carc.Cat.3; R40 Xn; R22 Xi; R36	Carc. 2, H351 Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319

Disodium Metasilicate	(CAS No) 6834-92-0 (EC no) 229-912-9 (EC index no) 014-010-00-8	0.1 - 1	C; R34 Xi; R37	Met. Corr. 1, H290 Skin Corr. 1B, H314 STOT SE 3, H335
Sodium Xylene Sulphonate	(CAS No) 1300-72-7 (EC no) 215-090-9	< 0.1	Xi; R36	Eye Irrit. 2, H319
Sodium Sulphamidate	(CAS No) 13845-18-6 (EC no) 237-572-8	< 0.1	Not classified	Not classified
Disodium Adipate	(CAS No) 7486-38-6 (EC no) 231-293-5	< 0.1	Not classified	Not classified

Name	Product Identifier	Specific Concentration Limits: DSD/DPD	Specific Concentration Limits: CLP
Sodium Nitrite	(CAS No) 7632-00-0 (EC no) 231-555-9 (EC index no) 007-010-00-4	(1 =< C < 5) Xn;R22 (C >= 5) T;R25	
Sodium Hydroxide, Caustic Soda	(CAS No) 1310-73-2 (EC no) 215-185-5 (EC index no) 011-002-00-6	(0.5 =< C < 2) Xi;R36/38 (2 =< C < 5) C;R34 (C >= 5) C;R35	(0.5 =<C < 2) Eye Irrit. 2, H319 (0.5 =<C < 2) Skin Irrit. 2, H315 (2 =<C < 5) Skin Corr. 1B, H314 (C >= 5) Skin Corr. 1A, H314
Trisodium Nitrilotriacetate	(CAS No) 5064-31-3 (EC no) 225-768-6 (EC index no) 607-620-00-6	(C >= 5) Carc. Cat. 3;R40	(C >= 5) Carc. 2, H351

Full text of R- and H-phrases: see section 16

Section 4: First Aid Measures

4.1 Description of first aid measures

First aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. (Show the label where possible.)
First aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Assure fresh air breathing. Allow the victim to rest.
First aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.
First aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTRE/doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Section 5: Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products (In case of fire) : Toxic fumes may be released.

5.3 Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Section 6: Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures****6.1.1 For non-emergency personnel**

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes.

6.1.2 For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2 Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3 Methods and material for containment and cleaning up

For containment : Stop leak without risks if possible.

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4 Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

Section 7: Handling and Storage**7.1 Precautions for safe handling**

Precautions for safe handling : Ensure good ventilation of the work station. Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Always wash hands after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from Direct sunlight. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

No additional information available.

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Gloves. Protective goggles. Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Skin Protection : Wear suitable protective clothing.

Respiratory protection : Wear appropriate mask.



Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid.

Appearance : Clear, colourless liquid.

Colour : Clear.

Odour : Odourless.

Odour threshold : No data available.

pH : No data available.

pH Solution : 12.

Relative evaporation rate (butylacetate=1) : No data available.

Melting point : Not applicable.

Freezing point : No data available.

Boiling point	: No data available.
Flash point	: No data available.
Self ignition temperature	: No data available.
Decomposition temperature	: No data available.
Flammability (solid, gas)	: Non-flammable.
Vapour pressure	: No data available.
Relative vapour density at 20 °C	: No data available.
Relative density	: No data available.
Density	: 1.11 g/cm ³
Solubility	: Soluble in water.
Log Pow	: No data available.
Viscosity, kinematic	: No data available.
Viscosity, dynamic	: No data available.
Explosive properties	: No data available.
Oxidising properties	: No data available.
Explosive limits	: No data available.

9.2. Other information

No additional information available.

SECTION 10: Stability and Reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Disodium Metasilicate (6834-92-0)	
LD50 oral rat	1152 - 1349 mg/kg bodyweight

Sodium Hydroxide, Caustic Soda (1310-73-2)	
LD50 oral rat	2000 mg/kg

Sodium Carbonate (497-19-8)	
LD50 oral rat	2800 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight

Tetrasodium Ethylene Diamine Tetraacetate (64-02-8)	
LD50 oral rat	1700 mg/kg bodyweight

Aryl Ether Phosphate Ester, Potassium Salt (72283-31-9)	
LD50 oral rat	> 2000 mg/kg

Sodium Xylene Sulphonate (1300-72-7)	
LD50 oral rat	>= 7200 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight

Sodium Sulphamidate (13845-18-6)	
LD50 oral rat	> 2500 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight

Disodium Adipate (7486-38-6)	
LD50 oral rat	5560 mg/kg bodyweight

Skin corrosion/irritation : Not classified.
Based on available data, the classification criteria are not met.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified.
Based on available data, the classification criteria are not met.

Germ cell mutagenicity : Not classified.
Based on available data, the classification criteria are not met.

Carcinogenicity : IF SWALLOWED: Possibly carcinogenic to humans.
Based on available data, the classification criteria are not met.

Reproductive toxicity : Not classified.
Based on available data, the classification criteria are not met.

Specific target organ toxicity: (Single exposure) : Not classified.
Based on available data, the classification criteria are not met.

Specific target organ toxicity (Repeated exposure) : Not classified
Based on available data, the classification criteria are not met.

Aspiration hazard : Not classified.
Based on available data, the classification criteria are not met.

Potential Adverse human health effects and symptoms : Harmful if swallowed.

SECTION 12: Ecological Information

12.1. Toxicity

Disodium Metasilicate (6834-92-0)	
LC50 Fishes 1	2320 mg/l Western mosquitofish (<i>Gambusia affinis</i>)
EC50 Daphnia 1	1700 mg/l
EC50 72h Algae [mg/l] (1)	207 mg/l

Sodium Hydroxide, Caustic Soda (1310-73-2)	
LC50 Fishes 1	125 mg/l Western mosquitofish (<i>Gambusia affinis</i>)
EC50 Other aquatic organisms 1	40.4 mg/l Species of water flea (<i>Ceriodaphnia</i> sp.)

Sodium Carbonate (497-19-8)	
LC50 Fishes 1	740 mg/l Western mosquitofish (<i>Gambusia affinis</i>)
EC50 Daphnia 1	200 - 227 mg/l Water flea (<i>Ceriodaphnia</i> sp.)
TLM Fish 1	1200 mg/l 96 hours

Tetrasodium Ethylene Diamine Tetraacetate (64-02-8)	
LC50 Fishes 1	121 mg/l Tests performed in very soft water (10-13 mg/l CaCO ₃)
LC50 Fish 2	1592 mg/l Tests performed in very hard water (280-320 mg CaCO ₃)

Sodium Xylene Sulphonate (1300-72-7)	
LC50 Fishes 1	> 1000 mg/l Rainbow trout (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 1	> 1000 mg/l
ErC50 (Algae)	310 mg/l
NOEC Chronic algae	40 mg/l

Sodium Nitrite (7632-00-0)	
LC50 Fishes 1	0.54 - 26.3 mg/l
LC50 Fish 2	35 mg/l (Channel Catfish)
EC50 Daphnia 1	15.4 mg/l
EC50 72h Algae [mg/l] (1)	> 100 mg/l

Sodium Sulphamidate (13845-18-6)	
LC50 Fishes 1	> 100 mg/l Rainbow trout (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 1	> 100 mg/l

Disodium Adipate (7486-38-6)	
LC50 Fishes 1	230 mg/l

12.2. Persistence and degradability

Sludge and Flux Remover – XP-3	
Persistence and degradability	Not established.

Disodium Metasilicate (6834-92-0)	
Persistence and degradability	Not established.

Sodium Carbonate (497-19-8)	
Persistence and degradability	Not established.

Tetrasodium Ethylene Diamine Tetraacetate (64-02-8)	
Persistence and degradability	Readily Biodegradable.
Chemical oxygen demand (COD)	260 g O ₂ /g substance.

Aryl Ether Phosphate Ester, Potassium Salt (72283-31-9)	
Persistence and degradability	Not established.

Sodium Xylene Sulphonate (1300-72-7)	
Persistence and degradability	Readily biodegradable.

Sodium Nitrite (7632-00-0)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Sludge and Flux Remover – XP-3	
Bioaccumulative potential	Not established.

Disodium Metasilicate (6834-92-0)	
Bioaccumulative potential	No bioaccumulation.

Sodium Carbonate (497-19-8)	
Bioaccumulative potential	No bioaccumulation.

Tetrasodium Ethylene Diamine Tetraacetate (64-02-8)	
Bioaccumulative potential	No bioaccumulation.

Aryl Ether Phosphate Ester, Potassium Salt (72283-31-9)	
Bioaccumulative potential	No bioaccumulation.

Sodium Xylene Sulphonate (1300-72-7)	
Bioaccumulative potential	Not established.

Sodium Nitrite (7632-00-0)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

Sodium Carbonate (497-19-8)	
Ecology - Soil	Soluble material/quickly disperses in water. Product adsorbs little onto the soil.

12.5. Results of PBT and vPvB assessment

Component	
Sodium Carbonate (497-19-8)	PBT: not relevant – no registration required
Tetrasodium Ethylene Diamine Tetraacetate (64-02-8)	PBT: not relevant – no registration required
Sodium Nitrite (7632-00-0)	PBT: not relevant – no registration required
Disodium Metasilicate (6834-92-0)	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

Additional information : Avoid release to the environment

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport Information

In accordance with ADR / RID / IMDG / IATA

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : Not applicable

Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) : Not applicable

Transport hazard class(es) (IMDG) : Not applicable

Transport hazard class(es) (IATA) : Not applicable

Transport hazard class(es) (ADN) : Not applicable

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

14.6.1. Overland transport

No data available.

14.6.2. *Transport by sea*

No data available.

14.6.3. *Air transport*

No data available.

14.6.4. *Inland waterway transport*

No data available.

14.6.5. *Rail transport*

No data available.

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*

15.1.1. *EU-Regulations*

Contains no substances with Annex XVII restrictions.

Contains no REACH candidate substance.

Contains no REACH Annex XIV substances.

15.1.2. *National regulations*

Germany

VwVwS Annex Reference : Water hazard class (WGK) 3, strongly hazardous to water (Classification according to VwVwS, Annex 4).

12th Ordinance Implementing the Federal : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance).

Immission Control Act - 12.BImSchV

15.2. *Chemical safety assessment*

No chemical safety assessment has been carried out

SECTION 16: Other Information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of R-, H- and EUH-phrases	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – AcuteHazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1

Ox. Sol. 3	Oxidising Solids, Category 3
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H272	May intensify fire; oxidizer
H290	May be corrosive to metals
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
R22	Harmful if swallowed
R25	Toxic if swallowed
R34	Causes burns
R35	Causes severe burns
R36	Irritating to eyes
R36/38	Irritating to eyes and skin
R37	Irritating to respiratory system
R40	Limited evidence of a carcinogenic effect
R41	Risk of serious damage to eyes
R50	Very toxic to aquatic organisms
R8	Contact with combustible material may cause fire
C	Corrosive
N	Dangerous for the environment
O	Oxidising
T	Toxic
Xi	Irritant
Xn	Harmful

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.