

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 14/02/2021 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

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

1.2.1. Relevant identified uses

Main use category : Professional use, Industrial use
Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Metal cleaner

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Stainless Restoration Ltd
Unit M1
Adamson Industrial Estate, Croft Street
SK14 1EE Hyde - UK
T +44 (0)161 368 6191 - F +44 (0)161 366 9790
lab@stainrest.com

1.4. Emergency telephone number

Emergency number : +44 (0)7808 728 099

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 1, Sub-Category 1A H314
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) :

Danger

Contains :

nitric acid ... %

Hazard statements (CLP) :

H314 - Causes severe skin burns and eye damage.

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
nitric acid ... % substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit (Note B)	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23	10 – 40	Ox. Liq. 2, H272 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1A, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
nitric acid ... %	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23	(5 ≤C < 20) Skin Corr. 1B, H314 (20 ≤C < 100) Skin Corr. 1A, H314 (65 ≤C < 99) Ox. Liq. 3, H272 (99 ≤C < 100) Ox. Liq. 2, H272

Note B : Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Full text of H-statements: 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. Immediately call a POISON CENTRE or doctor/physician. Specific treatment is urgent (see supplemental first aid instruction on this label).

First-aid measures after skin contact : Immediately call a POISON CENTRE or doctor/physician. Specific measures (see supplemental first aid instruction on this label). Gently wash with plenty of soap and water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Rinse skin with water/shower.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician.

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Fatal if swallowed. Immediately call a POISON CENTRE or doctor/physician. Specific treatment (see supplemental first aid instruction on this label).

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

Symptoms/effects : Causes severe skin burns and eye damage.
Symptoms/effects after inhalation : Fatal if inhaled.
Symptoms/effects after skin contact : Fatal in contact with skin.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : Fatal if swallowed.

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

Treat symptomatically. Treat skin burns as soon as possible with Calcium Glutamate.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.
Explosion hazard : Product is not explosive.
Reactivity 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 fire-fighting water entering the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Stop leak if safe to do so. Mark out the danger area with appropriate signs. Clean up any spills as soon as possible, using an absorbent material to collect it.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area. Evacuate unnecessary personnel. Stop leak if safe to do so. Mark out the contaminated area with signs and prevent access to unauthorized personnel.

6.2. Environmental precautions

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 : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up : 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.

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact during pregnancy/while nursing.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed.
- Incompatible products : Strong bases.
- Incompatible materials : Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

nitric acid ... % (7697-37-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Nitric acid
IOEL STEL	2.6 mg/m ³
IOEL STEL [ppm]	1 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	Nitric acid
WEL STEL (OEL STEL)	2.6 mg/m ³
WEL STEL (OEL STEL) [ppm]	1 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:			
Chemical goggles or face shield			
Type	Field of application	Characteristics	Standard
Safety goggles		clear	EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:					
Wear protective gloves.					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves, Disposable gloves	Polyvinylchloride (PVC)	6 (> 480 minutes)			EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:			
[In case of inadequate ventilation] wear respiratory protection.			
Device	Filter type	Condition	Standard
Gas filters	Type B - Inorganic gases (hydrogen sulfide, chlorine, hydrogen cyanide), EN141	Gas protection, Protection for Liquid particles	

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

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
Colour	: Colourless.
Odour	: Pungent.
Odour threshold	: No data available
pH	: 1
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Freezing point	: No data available
Boiling point	: 120 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: < 0.01 kPa
Relative vapour density at 20 °C	: No data available
Relative density	: 1.2
Solubility	: soluble in water.
Partition coefficient n-octanol/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 of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong bases.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

ATE CLP (oral)	50 mg/kg bodyweight
ATE CLP (dermal)	74 mg/kg bodyweight
ATE CLP (dust,mist)	0.473 mg/l/4h

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

nitric acid ... % (7697-37-2)	
LC50 Inhalation - Rat	2.65 mg/l/4h

Skin corrosion/irritation	: Causes severe skin burns. pH: 1
Serious eye damage/irritation	: Assumed to cause serious eye damage pH: 1
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Fatal if swallowed,Fatal in contact with skin,Fatal if inhaled.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information	: Avoid release to the environment.
------------------------	-------------------------------------

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Product/Packaging 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. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 2031	UN 2031	UN 2031	UN 2031	UN 2031
14.2. UN proper shipping name				
NITRIC ACID (nitric acid ... % ; hydrofluoric acid)	NITRIC ACID (nitric acid ... % ; hydrofluoric acid)	Nitric acid (nitric acid ... % ; hydrofluoric acid)	NITRIC ACID (nitric acid ... % ; hydrofluoric acid)	NITRIC ACID (nitric acid ... % ; hydrofluoric acid)
Transport document description (ADR)				
UN 2031 NITRIC ACID (nitric acid ... % ; hydrofluoric acid), 8 (5.1), II, (E)	UN 2031 NITRIC ACID (nitric acid ... % ; hydrofluoric acid), 8 (6.1), II	UN 2031 Nitric acid (nitric acid ... % ; hydrofluoric acid), 8, II	UN 2031 NITRIC ACID (nitric acid ... % ; hydrofluoric acid), 8, II	UN 2031 NITRIC ACID (nitric acid ... % ; hydrofluoric acid), 8, II
14.3. Transport hazard class(es)				
8 (5.1)	8	8	8	8
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

Overland transport

- Classification code (ADR) : CO1
Special provisions (ADR) : 274
Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Special packing provisions (ADR) : PP81, B15
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T8
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 2

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Special provisions for carriage - Loading, unloading and handling (ADR) : CV24
Special provisions for carriage - Operation (ADR) : S14
Hazard identification number (Kemler No.) : 85
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : 2P
APP code : B

Transport by sea

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
Special packing provisions (IMDG) : PP81
IBC packing instructions (IMDG) : IBC02
IBC special provisions (IMDG) : B15, B20
Tank instructions (IMDG) : T8
Tank special provisions (IMDG) : TP2
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Stowage category (IMDG) : D
Stowage and handling (IMDG) : SW2
Segregation (IMDG) : SGG1A, SG36, SG49
Properties and observations (IMDG) : Colourless liquid. Oxidant; may cause fire in contact with organic materials such as wood, cotton or straw, evolving highly toxic gases (brown fumes). Highly corrosive to most metals. Causes severe burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Forbidden
PCA limited quantity max net quantity (IATA) : Forbidden
PCA packing instructions (IATA) : Forbidden
PCA max net quantity (IATA) : Forbidden
CAO packing instructions (IATA) : 855
CAO max net quantity (IATA) : 30L
Special provisions (IATA) : A212
ERG code (IATA) : 8L

Inland waterway transport

Classification code (ADN) : C1
Special provisions (ADN) : 274, 802
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP, EP
Ventilation (ADN) : VE02
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : C1
Special provisions (RID) : 274
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Packing instructions (RID) : P001, IBC02
Special packing provisions (RID) : PP81, B15
Mixed packing provisions (RID) : MP15
Portable tank and bulk container instructions (RID) : T8
Portable tank and bulk container special provisions (RID) : TP2
Tank codes for RID tanks (RID) : L4BN
Special provisions for RID tanks (RID) : TU42
Transport category (RID) : 2

ENERJEX 610 PASSIVATION/DECONTAMINATION AGENT

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW28
Colis express (express parcels) (RID) : CE6
Hazard identification number (RID) : 80

14.7. Transport in bulk according to Annex II of Marpol 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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to 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.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

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 H- and EUH-statements:	
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Ox. Liq. 2	Oxidising Liquids, Category 2
Ox. Liq. 3	Oxidising Liquids, Category 3
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
H272	May intensify fire; oxidiser.
H314	Causes severe skin burns and eye damage.
H331	Toxic if inhaled.

Safety Data Sheet (SDS), EU

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.