

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

PAX-XL60

Revision Date: 02-Sep-2015

Revision Number: 1

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

1.1. Product Identifier

Product Name PAX-XL60
Internal ID Code HM008138

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

Recommended Use Water Clarifier
Uses Advised Against Consumer use

1.3. Details of the supplier of the safety data sheet

Halliburton Energy Services
Halliburton House, Howemoss Place
Kirkhill Industrial Estate
Dyce
Aberdeen, AB21 0GN
United Kingdom

www.halliburton.com

For further information, please contact

E-Mail address: fdunexchem@halliburton.com

1.4. Emergency telephone number

+44 8 08 189 0979 / 1-760-476-3961

Emergency telephone - §45 - (EC)1272/2008	
Europe	112
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)
Cyprus	+210 7793777
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO): +47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Romania	+40 21 318 36 06
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	NHS Direct (UK): +44 0845 46 47

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Serious Eye Damage / Eye Irritation	Category 1 - H318
Corrosive to Metals.	Category 1 - H290

2.2. Label Elements

Hazard Pictograms



Signal Word

Danger

Hazard Statements

H290 - May be corrosive to metals

H318 - Causes serious eye damage

Precautionary Statements - EU (§28, 1272/2008)

P234 - Keep only in original container

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P390 - Absorb spillage to prevent material damage

P406 - Store in corrosive resistant container with a resistant liner

Contains

Substances

Aluminum chloride, basic

CAS Number

1327-41-9

2.3. Other Hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on Ingredients

3.2. Mixtures

Mixture

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH No.
Aluminum chloride, basic	215-477-2	1327-41-9	30 - 60%	Eye Corr. 1 (H318) Met. Corr. 1 (H290)	01-2119531563-43

For the full text of the H-phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Eyes

Immediately flush eyes with large amounts of water for at least 30 minutes. Seek prompt medical attention.

Skin

Flush skin with large amounts of water. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Obtain immediate medical attention.

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

Causes serious eye damage.

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

Notes to Physician Chemical eye burns may require extended irrigation

SECTION 5: Firefighting Measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Foam. Dry powder

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture

Special Exposure Hazards

Decomposition in fire may produce harmful gases.

5.3. Advice for firefighters

Special Protective Equipment for Fire-Fighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Avoid breathing vapors.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Neutralize with soda ash or other non-reactive alkaline.

6.4. Reference to other sections

See Section 8 and 13 for additional information.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling

Use appropriate protective equipment. Avoid contact with eyes, skin, or clothing. Ensure adequate ventilation. Avoid breathing vapors. Wash hands after use. Launder contaminated clothing before reuse.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store in a well ventilated area. Product has a shelf life of 12 months. Store at temperatures not exceeding 0-30 °C/ 32-86 °F

7.3. Specific End Use(s)

Exposure Scenario

No information available

Other Guidelines

No information available

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Exposure Limits

Substances	CAS Number	EU	UK	Netherlands	France
Aluminum chloride, basic	1327-41-9	Not applicable	TWA: 2 mg/m ³ STEL: 6 mg/m ³	TWA: 0.05 mg/m ³	Not applicable

Substances	CAS Number	Germany	Spain	Portugal	Finland
------------	------------	---------	-------	----------	---------

Aluminum chloride, basic	1327-41-9	Not applicable	TWA: 2 mg/m ³	TWA: 2 mg/m ³	Not applicable
--------------------------	-----------	----------------	--------------------------	--------------------------	----------------

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Aluminum chloride, basic	1327-41-9	Not applicable	2 mg/m ³ TWA	Not applicable	TWA: 2 mg/m ³ STEL: 4 mg/m ³

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Aluminum chloride, basic	1327-41-9	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Aluminum chloride, basic	1327-41-9	TWA: 1 mg/m ³	Not applicable	Not applicable	Not applicable

Derived No Effect Level (DNEL)

No information available.

Worker

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure - systemic effects, Dermal	Long-term exposure - local effects, Dermal	Acute / short term exposure - local effects, Dermal	Hazards for the eyes - local effects
Aluminum chloride, basic	1,8 mg/m ³	Not available	Not available	Not available	Not available	Not available	Not available	Not available	Not available

General Population

Substances	Long-term exposure - systemic effects, Inhalation	Acute / short term exposure - systemic effects, Inhalation	Long-term exposure - local effects, Inhalation	Acute / short term exposure - local effects, Inhalation	Long-term exposure - systemic effects, Dermal	Acute / short term exposure - systemic effects, Dermal	Long-term exposure - local effects, Dermal	Acute / short term exposure - local effects, Dermal	Long-term exposure - systemic effects, Oral	Acute / short term exposure - local effects, Oral	Hazards for the eyes - local effects
Aluminum chloride, basic	1,1 mg/m ³	Not available	Not available	Not available	Not available	Not available	Not available	Not available	0,3 mg/kg bw/d	Not available	Not available

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls**Engineering Controls**

Ensure adequate ventilation, especially in confined areas

Personal protective equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection

If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.

Hand Protection

Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron, rain jacket, pants or coverall, as appropriate, to prevent skin contact.

Eye Protection

Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles, Face-shield.

Other Precautions

Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls Do not allow material to contaminate ground water system

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid
Odor: Mild

Color: Yellowish
Odor Threshold: No information available

Property Remarks/ - Method	Values
pH	ca. 1.5
pH:	No data available
Freezing Point/Range	No data available
Melting Point/Range	No data available
Boiling Point/Range	100-120 °C / 212-248 °F
Flash Point	Not flammable.
Flammability (solid, gas)	No data available
upper flammability limit	No data available
lower flammability limit	No data available
Evaporation rate	
Vapor Pressure	No data available
Vapor Density	No data available
Specific Gravity	1.30-1.33
Water Solubility	Soluble in water (20 °C)
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	>200 °C
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

VOC Content (%)	No data available
------------------------	-------------------

SECTION 10: Stability and Reactivity

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical Stability

Stable

10.3. Possibility of Hazardous Reactions

Will Not Occur

10.4. Conditions to Avoid

Excessive heat

10.5. Incompatible Materials

Strong oxidizers. Strong bases.

10.6. Hazardous Decomposition Products

Aluminum oxides Hydrogen chloride.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects**Acute Toxicity**

Inhalation	May cause mild respiratory irritation.
Eye Contact	Causes serious eye damage.
Skin Contact	May cause skin irritation.
Ingestion	May cause abdominal pain, vomiting, nausea, and diarrhea. Irritation of the mouth, throat, and stomach.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Aluminum chloride, basic	1327-41-9	>2000 mg/kg (Rat)	>2000 mg/kg (Rat)	> 5 mg/L (Rat, mist, 4 hr)

Substances	CAS Number	Skin corrosion/irritation
Aluminum chloride, basic	1327-41-9	Not irritating to skin in rabbits.

Substances	CAS Number	Eye damage/irritation
Aluminum chloride, basic	1327-41-9	Causes serious eye damage

Substances	CAS Number	Skin Sensitization
Aluminum chloride, basic	1327-41-9	Did not cause sensitization on laboratory animals

Substances	CAS Number	Respiratory Sensitization
Aluminum chloride, basic	1327-41-9	No information available

Substances	CAS Number	Mutagenic Effects
Aluminum chloride, basic	1327-41-9	In vitro tests did not show mutagenic effects

Substances	CAS Number	Carcinogenic Effects
Aluminum chloride, basic	1327-41-9	Not regarded as carcinogenic.

Substances	CAS Number	Reproductive toxicity
Aluminum chloride, basic	1327-41-9	When tested at maternally toxic doses, no adverse effects on fertility, teratogenicity, or development were observed.

Substances	CAS Number	STOT - single exposure
Aluminum chloride, basic	1327-41-9	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
Aluminum chloride, basic	1327-41-9	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Aluminum chloride, basic	1327-41-9	Not applicable

SECTION 12: Ecological Information

12.1. Toxicity

Ecotoxicity Effects

Harmful to aquatic organisms

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Aluminum chloride, basic	1327-41-9	No information available	LC50 (Danio rerio): 186 mg/L/96h	No information available	EC50 (Daphnia magna): 38 mg/L/48h NOEC (Ceriodaphnia dubia): 3.8 mg/L/8d

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Aluminum chloride, basic	1327-41-9	No information available

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Aluminum chloride, basic	1327-41-9	No information available

12.4. Mobility in soil

Substances	CAS Number	Mobility
Aluminum chloride, basic	1327-41-9	No information available

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Substances	PBT and vPvB assessment
Aluminum chloride, basic	Not PBT/vPvB

12.6. Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal Considerations**13.1. Waste treatment methods****Disposal Method**

Dispose in accordance with local regulations.

Contaminated Packaging

Follow all applicable national or local regulations.

SECTION 14: Transport Information**IMDG/IMO**

UN Number: UN3264
UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Polyaluminum Chloride)
Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Not applicable

RID

UN Number: UN3264
UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Polyaluminum Chloride)
Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Not applicable

ADR

UN Number: UN3264
UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Polyaluminum Chloride)
Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Not applicable

IATA/ICAO

UN Number: UN3264
UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Polyaluminum Chloride)
Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Not applicable

14.1. UN Number: UN3264

14.2. UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Polyaluminum Chloride)

14.3. Transport Hazard Class(es): 8

14.4. Packing Group: III

14.5. Environmental Hazards: Not applicable

14.6. Special Precautions for User: None

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

International Inventories

EINECS Inventory

This product does not comply with EINECS

US TSCA Inventory

All components listed on inventory or are exempt.

Canadian DSL Inventory

All components listed on inventory or are exempt.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering Classes (WGK)

Not determined.

15.2. Chemical Safety Assessment

No information available

SECTION 16: Other Information

Full text of H-Statements referred to under sections 2 and 3

H290 - May be corrosive to metals

H318 - Causes serious eye damage

Key or legend to abbreviations and acronyms

bw – body weight

CAS – Chemical Abstracts Service

CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures

EC – European Commission

EC10 – Effective Concentration 10%

EC50 – Effective Concentration 50%

EEC – European Economic Community

ErC50 – Effective Concentration growth rate 50%

IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

LC50 – Lethal Concentration 50%

LD50 – Lethal Dose 50%

LL0 – Lethal Loading 0%

LL50 – Lethal Loading 50%

MARPOL – International Convention for the Prevention of Pollution from Ships

mg/kg – milligram/kilogram

mg/L – milligram/liter

NIOSH – National Institute for Occupational Safety and Health

NOEC – No Observed Effect Concentration

NTP – National Toxicology Program

OEL – Occupational Exposure Limit

PBT – Persistent Bioaccumulative and Toxic

PC – Chemical Product category

PEL – Permissible Exposure Limit

ppm – parts per million

PROC – Process category

REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

STEL – Short Term Exposure Limit

SU – Sector of Use category

Key literature references and sources for data

www.ChemADVISOR.com/

Prepared By

Halliburton Global Chemical Stewardship

Telephone: 1-580-251-4335

e-mail: fdunexchem@halliburton.com

Issuing Date:

10-Jul-2015

Revision Note

Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010

Disclaimer Statement

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

End of Safety Data Sheet