

Buffered Ammonium Persulphate Solutions

Section 1. Identification of Product and Company

1.1 Identification of substance or preparation: Buffered Ammonium Persulphate Solutions (15%)

Synonyms: Ammonium Persulphate – Ammonium Peroxodisulphate, Diammonium Peroxodisulphate, Diammonium Persulphate
 Disodium Phosphate Dibasic – Sodium Phosphate, Disodium Hydrogen Phosphate, Sodium Monohydrogen Phosphate
 Sodium Phosphate Monobasic – Sodium Biphosphate, Sodium Dihydrogen Phosphate

1.2 Product Application: This MSDS provides Health and Safety information from any Buffered Ammonium Persulphate (15%) component of the following vials or kits:

Altus Science Part Number	Product Name/Description/Range
(K) = Kit A-2800, A-2803, A-2804, A-7800	15% Buffered Ammonium Persulphate Solutions

1.3 Company/Undertaking Identification:

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Section 2. Hazards Identification

2.1 Hazard Summary:

Physical hazards: Not classified for physical hazards
Health hazards: May cause sensitisation by inhalation and skin contact
Environmental hazards: Not classified for hazards to the environment

2.2 Label elements:

Contains: Ammonium Phosphate, Disodium Phosphate, Sodium Phosphate Monobasic Water
Supplemental label information: Not applicable

2.3 Other hazards: Not assigned

Section 3. Composition/Information on Ingredients

3.1 Mixtures:

Chemical description: Aqueous Solution of inorganic salts

Compound Name	CAS-No.	EC No.	Concentration	CLP Classification - Reg No.
Water	7732-18-5	231-791-2	≥80.5%	Not applicable
Ammonium Persulphate	7727-54-0	231-786-5	15%	Ox.liq.3;H272, Acute Tox. 4;H302/4;H312, Skin Irrit.2;H315, Skin sens.1;H317, Eye Irrit.2;H319, Resp.Sens. 1;H334, STOT SE 3;H335
Disodium Phosphate	7558-79-4	231-448-7	2.8%	Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335
Sodium Phosphate	10049-21-5	N/A	1.7%	Not Applicable

Section 4. First Aid Measures

4.1 Description of first aid measures:

Skin Contact: Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical attention

Eye Contact: Flush eyes with water. Seek medical attention

Ingestion: No treatment required

Inhalation: Remove to fresh air. Seek medical attention

4.2 Most important symptoms and effects, both acute and delayed: Sensitisation. Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed: Not available

Section 5. Fire Fighting Measures

5.1 Extinguishing media:

Suitable Extinguishing Media: Carbon dioxide, dry chemicals, foam, water spray

Unsuitable Extinguishing Media: None

5.2 Special hazards arising from the substance or mixture: Oxides of carbon, nitrogen, phosphorus and Sulphur evolved in fire

5.3 Advice for fire-fighters:

Special protective equipment for fire-fighters: Self-contained breathing apparatus, protective clothing, protective gloves and helmet

Special fire-fighting procedures: Use standard fire-fighting procedures and consider the hazards of other involved materials

Prevent spillage and fire-fighting water from entering public sewers or the immediate environment

5.4 Further information: No data available

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Wear protective clothing, gloves and safety goggles

For emergency responders: Use personal protection recommended in Section 8 of the MSDS

6.2 Environmental precautions:

Prevent from entering sewers or the immediate environment
Accidental release of large quantities into the aquatic environment may harm aquatic organisms

6.3 Methods and materials for containment and clean up:

- Spills of the product could present a significant slip hazard depending on quantity and surface type
- Contain and recover by physical means
- Clean small spills by diluting with sufficient quantities of water

6.4 Reference to other sections:

Please refer to Section 8 for further information

Section 7. Handling and Storage

7.1 Precautions for safe handling:

Ensure good ventilation
Handle in accordance with good industrial hygiene and safety procedures
Wash contaminated skin promptly

7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area
Store closed containers when not in use
Store in a closed container away from incompatible materials

7.3 Specific end use(s):

For professional and industrial users only

7.4 Shelf life:

365 days

Section 8. Exposure Controls/Personal Protection

8.1 Control parameters

Occupational exposure limits - UK EH40 Workplace Exposure Limits (WEL's):

Components	Type	Value
Ammonium Persulphate (7727-54-0)	STEL	N/A
	TWA	0.1mg/m3

8.2 Exposure controls:

Biological Limit Values: No biological exposure limits noted for the ingredient(s)

Recommended monitoring procedures: Not available

Environmental exposure controls: Not applicable

Appropriate engineering controls: Adequate ventilation to maintain air contaminants below exposure limits

Personal protective equipment:

Eye/face protection: Safety goggles

Skin protection: Neoprene gloves

Body protection: Protective clothing

Respiratory protection: In case of sufficient ventilation, use a breathing mask with filter type

Section 9. Physical and Chemical Properties

9.1 Physical and Chemical Properties:

Characteristic		Description
Appearance	<i>Physical State</i>	Liquid
	<i>Colour</i>	Colourless
Odour		None
Odour Threshold		Not available
pH (Concentrated product)		6.5
Melting point/freezing point		1°C
Initial boiling point and boiling range		100°C
Flash point		>100,00°C Pensky Martens (CC)
Evaporation rate		1 (Ether=1)
Flammability (solid, gas)		Not applicable
Flammable Limit - lower		Not available
Flammable Limit - upper		Not available
Vapour pressure		11mm Hg at 21°C
Vapour density		1 (Air =1)
Relative density		1,09
Water solubility		Completely soluble
Partition coefficient (n-Octanol/water)		Not available
Auto-ignition temperature		Not applicable
Decomposition temperature		Not available
Viscosity		Not applicable
Explosive properties		Not available
Oxidizing properties		Not available

9.2 Other safety information: No relevant additional information available

Section 10. Stability and Reactivity

10.1 Reactivity: Not available

10.2 Chemical Stability: Material is stable under normal conditions

10.3 Possibility of hazardous reactions: Hazardous polymerisation does not occur

10.4 Conditions to avoid: No special requirement

10.5 Incompatible materials: Avoid contact with strong reducing agents

10.6 Hazardous decomposition products: Oxides of carbon, nitrogen, phosphorus and sulphur evolved in fire

Section 11. Toxicological Information

11.1 Information on toxicological effects:

Product/Component	LD50 Oral	LD50 Dermal
Ammonium Persulphate Solution (Mixture)	Rat:>5000mg/kg (Calculated data)	N/A
Sodium Phosphate, monobasic (10049-21-5)	Acute Oral. Rat:> 8290mg/kg	Rabbit:> 7940mg/kg
Disodium Phosphate (7558-79-4)	Rat:>5000mg/kg	N/A
Ammonium Persulphate (7727-54-0)	Rat:> 495mg/kg	Rabbit:> 2000mg/kg

Acute toxicity: Not classified

Skin corrosion/irritation: Causes skin irritation

Respiratory or skin sensitisation: May cause sensitisation by inhalation

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

Information on likely routes of exposure:

Ingestion: May cause slight gastrointestinal irritation

Inhalation: May cause sensitisation

Skin contact: May cause sensitisation. Causes irritation

Eye contact: Causes irritation

Signs and symptoms of Exposure: Not available

Mixture versus substance information: None known

Additional information: Not available

Section 12. Ecological Information

12.1 Toxicity: No toxicity data noted for the ingredient(s)

12.2 Persistence and degradability: No data available

12.3 Bio accumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment: Not a PBT or vPvB substance or mixture

12.6 Other adverse effects: Not available

12.7 Summary: The product is not classified as dangerous for the environment. The evaluation of the environmental hazards is based on the concentration limits set out in directive 1999/45/EC

Section 13. Disposal Considerations

13.1 Waste treatment methods:

Product - According to Controlled Waste Regulations:

European Waste Code (EWC) recommendation: 16 03 03

16 Wastes not otherwise specified in the list

16 03 Off-specification batches and unused products

16 03 03 Inorganic wastes containing dangerous substances

Depending on the origin and state of waster, other EWC numbers may be applicable too

Contaminated packaging - According to Controlled Waste Regulations:

European Waste Code (EWC) recommendation: 15 01 02

15 Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified

15 01 Packaging (including separately collected municipal packaging waste)

15 01 02 Plastic packaging

Depending on the origin and state of the waste, other EWC numbers may be applicable too

Section 14. Transport Information

14.1 UN Number :

ADR/RID: UN1760 **IMDG:** UN1760 **ADN:** UN1760 **IATA:** UN1760

14.2 UN proper shipping name: Ammonium persulphate, Mixture

14.3 Transport hazard classes: 8

14.4 Packaging group: III

14.5 Environmental hazards: No

14.6 Special precautions for user: This substance/mixture is not intended to be transported in bulk

Section 15. Regulatory Information

15.1 Safety, health and environment regulations/legislation specific for the substance or mixture: No data available

15.2 Chemical safety assessment: No data available

15.3 Other regulations: This product does not need to be labelled in accordance with EC directives or respective national laws.

Section 16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on present state of knowledge and is applicable to the product with regard to appropriate safety precautions. Altus Science Ltd shall not be held liable for any damage resulting from handling or from contact with the above product. Please refer to Terms and Conditions for further information of sale.

Abbreviations

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

RID - International Rule for Transport of Dangerous Substances by Railway

ADN - International Carriage of Dangerous Goods by Inland Navigation

IATA - International Air transport Association

IMDG - International Maritime Dangerous Goods Code

WEL - Workplace Exposure Limit

TWA - Time weighted Average

STEL - Short-term Exposure Limit

vPvB - Very persistent, very Bio accumulative

H272 – May intensify fire; oxidiser

H302 – Harmful if swallowed

H312 – Harmful in contact with skin

H315 – Causes skin irritation

H317 – May cause an allergic skin reaction

H319 – Causes serious eye irritation

H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 – May cause respiratory irritation