

## Safety Data Sheet

### Section 1: Identification

**Product Name:** Bolifor MSP, Monosodium Phosphate

**Product type:** Solid (Granular solid.)

**Product Code:** PKEV9Y

#### Uses

**Area of application:** Industrial applications, Professional applications.

**Material uses:** Professional USE as such or in a mixture, in the feed industry.

#### Company Identification:

Origination, LLC  
1802 Wooddale Drive, Suite 200  
Woodbury, MN 55125

**For information, call:** 1-800-625-6079

**Emergency Number:** 1-800-625-6079

**For CHEMTREC assistance, call:** 1-800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2: Hazard(s) Identification

**OSHA/HCS status:** This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification and labelling have been performed following the guidelines and recommendation of GHS and the intended use.**

**Classification of the substance or mixture:** Not classified.

#### GHS label elements

**Signal word:** No signal word.

**Hazard statements:** Not applicable.

#### Precautionary statements

**General:** Not applicable.

**Hazards not otherwise classified:** None.

### Section 3: Composition / Information on Ingredients

**Substance/mixture:** Mono-constituent substance.

# Bolifor MSP – Monosodium Phosphate



## CAS number/other identifiers

Product/ Ingredient Name	CAS number	%
Phosphoric acid, sodium salt (1:1)	CAS: 7558-80-7	100

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.**

## Section 4: First Aid Measures

### Description of necessary first aid measures

**Eye contact:** Rinse with plenty of running water. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation:** If inhaled, remove to fresh air. Get medical attention if you feel unwell.

**Skin contact:** Wash with soap and water. Get medical attention if irritation develops.

**Ingestion:** Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if adverse health effects persist or are severe.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

**Eye contact:** No known significant effects or critical hazards.

**Inhalation:** No known significant effects or critical hazards.

**Skin contact:** No known significant effects or critical hazards.

**Ingestion:** No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

**Eye contact:** No specific data.

**Inhalation:** No specific data.

**Skin contact:** No specific data.

**Ingestion:** No specific data.

#### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician:** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments:** No specific treatment.

**Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training.

## Section 5: Fire Fighting Measures

### Extinguishing media

**Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media:** None identified.

**Specific hazards arising from the chemical:** No specific fire or explosion hazard.

**Hazardous thermal decomposition products:** Avoid breathing dusts, vapors or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.

**Special protective actions for fire-fighters:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Remark:** Non-flammable.

**Remark:** None.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

**For emergency responders:** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and material for containment and cleaning up

**Small spill:** Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill:** Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## Section 7: Handling and Storage

### Precautions for safe handling

**Protective measures:** Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene:** Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities:** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8: Exposure Controls, Personal Protection

### Control parameters

### Personal protective equipment

**Occupational exposure limits:** None.

**Appropriate engineering controls:** Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing. A washing facility or water for eye and skin cleaning purposes should be present.

**Eye/face protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

### Skin protection

**Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

**Other skin protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection:** Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.



**Personal protective equipment (Pictograms):**

## Section 9: Physical and Chemical Properties

### Appearance

**Physical state:** Solid [Granular solid.]

**Color:** Gray

**Odor:** Mild.

**Odor threshold:** Not determined.

**pH:** 5.5 - 6.5 [Conc.: 10 g/l]

**Melting/freezing point:** Not determined.

**Boiling/condensation point:** Not determined.

**Sublimation temperature:** Not determined.

# Bolifor MSP – Monosodium Phosphate



**Flash point:** Not determined.  
**Evaporation rate:** Not determined.  
**Flammability:** Not determined.  
**Lower and upper explosive (flammable) limits:** Not determined.  
**Vapor pressure:** Not determined.  
**Bulk density:** 950 - 1,150 kg/m<sup>3</sup>  
**Relative density:** Not determined.  
**Solubility:** 950 g/l Easily soluble in the following materials: cold water  
**Partition coefficient: n-octanol/water:** Not determined.  
**Auto-ignition temperature:** Not determined.  
**Decomposition temperature:** Not determined.  
**Viscosity**  
    **Dynamic:** Not determined.  
    **Kinematic:** Not determined.  
**Explosive properties:** None.  
**Oxidizing properties:** None.

## Section 10: Stability and Reactivity

**Reactivity:** No specific test data related to reactivity available for this product or its ingredients.  
**Chemical stability:** The product is stable.  
**Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.  
**Conditions to avoid:** Avoid contamination by any source including metals, dust and organic materials.  
**Incompatible materials:** No specific data.  
**Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11: Toxicological Information

### Information on toxicological effects

#### Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure	References
Phosphoric acid, sodium salt (1:1)					
	LD50 Oral	Rat	5,700 mg/kg	Not applicable.	
	LD50 Oral	Rat	> 2,000 mg/kg	Not applicable.	
	LD50 Oral	Rat	> 5,000 mg/kg	Not applicable.	

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**Conclusion/Summary:** No known significant effects or critical hazards.

## Irritation/Corrosion

Product / ingredient name	Result	Species	Score	Exposure	Observation	References
Phosphoric acid, sodium salt (1:1)	Skin - Erythema/Eschar	Rabbit	0	4 h	Not applicable.	
Phosphoric acid, sodium salt (1:1)	Skin - Edema	Rabbit	0	4 h	Not applicable.	
Phosphoric acid, sodium salt (1:1)	Skin - Primary dermal irritation index (PDII)	Rabbit	0.62	24 h	Not applicable.	
Phosphoric acid, sodium salt (1:1)	Eyes – Redness of the conjunctivae	Rabbit	0	72 h	Not applicable.	

## Conclusion/Summary

**Skin:** No known significant effects or critical hazards.

**Eyes:** No known significant effects or critical hazards.

**Respiratory:** No known significant effects or critical hazards.

## Sensitization

### Conclusion/Summary

**Skin:** No known significant effects or critical hazards.

**Respiratory:** No known significant effects or critical hazards.

## Mutagenicity

**Conclusion/Summary:** No known significant effects or critical hazards.

## Carcinogenicity

**Conclusion/Summary:** No known significant effects or critical hazards.

**Reproductive toxicity:** No data available.

**Conclusion/Summary:** No known significant effects or critical hazards.

## Teratogenicity

**Conclusion/Summary:** No known significant effects or critical hazards.

**Specific target organ toxicity (single exposure):** No known significant effects or critical hazards.

**Specific target organ toxicity (repeated exposure):** No known significant effects or critical hazards.

**Aspiration hazard:** No known significant effects or critical hazards.

**Information on the likely routes of exposure:** Not available.

## Potential acute health effects

**Eye contact:** No known significant effects or critical hazards.

**Inhalation:** No known significant effects or critical hazards.

**Skin contact:** No known significant effects or critical hazards.

**Ingestion:** No known significant effects or critical hazards.

## Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact:** No specific data.

**Inhalation:** No specific data.

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**Skin contact:** No specific data.

**Ingestion:** No specific data.

## Delayed and immediate effects and also chronic effects from short and long term exposure

### Short term exposure

**Potential immediate effects:** Not available.

**Potential delayed effects:** Not available.

### Long term exposure

**Potential immediate effects:** Not available.

**Potential delayed effects:** Not available.

### Potential chronic health effects

Product / ingredient name	Result	Species	Dose	Exposure	References
Phosphoric acid, sodium salt (1:1)	NOAEL Oral	Rat	1,000 mg/kg	4 weeks	

**Conclusion/Summary:** known significant effects or critical hazards.

**General:** known significant effects or critical hazards.

**Carcinogenicity:** known significant effects or critical hazards.

**Mutagenicity:** known significant effects or critical hazards.

**Teratogenicity:** known significant effects or critical hazards.

**Developmental effects:** known significant effects or critical hazards.

**Fertility effects:** known significant effects or critical hazards.

### Over-exposure signs/symptoms

**Eye contact:** No specific data.

**Inhalation:** No specific data.

**Skin contact:** No specific data.

**Ingestion:** No specific data.

### Numerical measures of toxicity

**Acute toxicity estimates:** Not available.

## Section 12: Ecological Information

Toxicity				
	Acute LC50 186 mg/l Fresh water	Fish	4 d	Sewage Ind.Wastes 29(6):695-711
	Acute LC50 92 mg/l Fresh water	Aquatic invertebrates.	24 h	
	Acute LC50 > 150 mg/l Salt water	Aquatic invertebrates.	96 h	

**Conclusion/Summary:** No known significant effects or critical hazards.

## Persistence/degradability

**Conclusion/Summary:** No known significant effects or critical hazards.

## Bioaccumulative potential

**Conclusion/Summary:** No known significant effects or critical hazards.

## Mobility in soil

**Soil/water partition coefficient (KOC):** Not available.

**Mobility:** Not available.

**Other adverse effects:** No known significant effects or critical hazards.

## Section 13: Disposal Considerations (non-mandatory)

### Product

**Methods of disposal:** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**United States - RCRA Acute hazardous waste "P" List:** Not listed.

**United States - RCRA Toxic hazardous waste "U" List:** Not listed.

## Section 14: Transport Information

Regulation: UN Class	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.
Additional information Environmental hazards:	No.

Regulation: IMDG	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.
Additional Information	



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Regulation: IATA	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.
<b>Additional information</b> Marine pollutant:	No.

Regulation: DOT Classification	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.
<b>Additional information</b> Marine pollutant:	No.

Regulation: TDG Class	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.
<b>Additional information</b> Environmental hazards:	No.

**14.6 Special precautions for user:** Transport within user's premises: Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**IMSBC:** Not available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable.

## Section 15: Regulatory Information

### United States

#### U.S. Federal regulations

United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Not listed.

United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Not listed.

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**United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances:** Not listed.

**United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances:** Not listed.

**United States - Department of commerce - Precursor chemical:** Not listed.

**Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs):** Not listed.

**Clean Air Act Section 602 Class I Substances:** Not listed.

**Clean Air Act Section 602 Class II Substances:** Not listed.

**DEA List I Chemicals (Precursor Chemicals):** Not listed.

**DEA List II Chemicals (Essential Chemicals):** Not listed.

**SARA 302/304:** Not applicable.

**SARA 304 RQ:** Not applicable.

**SARA 311/312**

**Classification:** Not applicable.

## State regulations

**Massachusetts:** None of the components are listed.

**New York:** None of the components are listed.

**New Jersey:** None of the components are listed.

**Pennsylvania:** None of the components are listed.

**California Prop. 65:** This product contains a chemical (or chemicals) known to the State of California to cause cancer and birth defects or other reproductive harm.

## International lists

**Philippines inventory (PICCS):** All components are listed or exempted.

**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.

**Korea inventory:** All components are listed or exempted.

**Japan inventory:** All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

**Australia inventory (AICS):** All components are listed or exempted.

**Canada inventory (DSL and NDSL):** All components are listed or exempted.

**Taiwan inventory (CSNN):** All components are listed or exempted.

**United States inventory (TSCA 8b):** All components are listed or exempted.

**EC INVENTORY (EINECS/ELINCS):** All components are listed or exempted.

**Safety, health and environmental regulations specific for the product:** No known other specific national and/or regional regulations applicable to this product (including its ingredients).

## Section 16: Additional Information

### Hazardous Material Information System (U.S.A.)

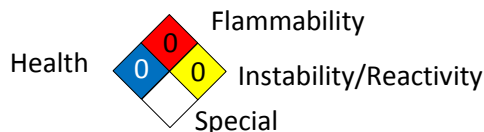
Health	-	1
Flammability		0
Physical hazards		0

**Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.**

The customer is responsible for determining the PPE code for this material.

**Chronic toxicity:** No data available. \*: Carcinogen, Target organs, Reproductive effects, Sensitizer to lungs

### National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### Key to abbreviations:

**ADN/ADNR** = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

**ADR** = The European Agreement concerning the International Carriage of Dangerous Goods by Road

**ATE** = Acute Toxicity Estimate

**BCF** = Bioconcentration Factor

**bw** = Body weight

**GHS** = Globally Harmonized System of Classification and Labelling of Chemicals

**IATA** = International Air Transport Association

**IBC** = Intermediate Bulk Container

**IMDG** = International Maritime Dangerous Goods

**LogPow** = logarithm of the octanol/water partition coefficient

**MARPOL 73/78** = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

**NOHSC** - National Occupational Health and Safety Commission

**RID** = The Regulations concerning the International Carriage of Dangerous Goods by Rail

**SUSDP** - Standard for the Uniform Scheduling of Drugs and Poisons

**UN** = United Nations

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**References:** EU REACH IUCLID5 CSR.

National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda Registry of Toxic Effects of Chemical Substances.

IHS, 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada.

## History

**Date of printing:** 03/30/2016

**Date of issue/Date of revision:** 03/22/2016

**Date of previous issue:** 00/00/0000

**Revision comments:** ||, See Section 1 for supplier contact information.

**Version:** 1.0

**Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**Prepared by:** Origination, LLC

**Prepared:** November 12, 2020

## Disclaimer:

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