



**PRAYPHOS™ SHMP 440 FG**  
**PRAYPHOS™ SHMP 441 FG GR**  
**PRAYPHOS™ SHMP 450 FG**  
**PRAYPHOS™ SHMP 451 FG GR**  
**PRAYPHOS™ SHMP 460 FG**  
**PRAYPHOS™ SHMP 461 FG GR**

SDS Sheet Supplied by:



**Safety Data Sheet PINC-0073**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 02/01/2012

Revision date: 11/14/2018

Supersedes: 04/20/2015

Version: 1.3

## SECTION 1: Identification

### 1.1. Identification

Product form	: Substance
Trade name	: PRAYPHOS™ SHMP 440 FG PRAYPHOS™ SHMP 441 FG GR PRAYPHOS™ SHMP 450 FG PRAYPHOS™ SHMP 451 FG GR PRAYPHOS™ SHMP 460 FG PRAYPHOS™ SHMP 461 FG GR
Chemical name	: Polyphosphoric acids, sodium salts
CAS-No.	: 68915-31-1
Product code	: PINC-0073
Formula	: (NaPO <sub>3</sub> ) <sub>n</sub> - Na <sub>2</sub> O
Synonyms	: Sodium hexametaphosphate; Graham salt; Polyphosphoric acids, sodium salts, E452
REACH registration No.	: No registration number available for this substance because it is (or its use) exempted from registration according to the article 2 of REACH (EC) regulation N° 1907/2006, the annual tonnage doesn't require any registration or the registration is scheduled later. (Polymer)

### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Food/feedstuff additives

### 1.3. Supplier

**Supplier**  
PRAYON INC.  
1610 Marvin Griffin Rd.  
Augusta, 30906 - United States of America  
[customerserviceusa@prayon.com](mailto:customerserviceusa@prayon.com)

**Details of the supplier of the safety data sheet**  
Prayon S.A.  
144 Rue Joseph Wauters  
P.O. Box 144  
Engis, 4480  
[www.prayon.be](http://www.prayon.be)

### 1.4. Emergency telephone number

Emergency number : In case of emergency: CHEMTREC +1 703-741-5970 / 1-800-424-9300. IN THE EVENT OF A CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC: +1 703-741-5970 / 1-800-424-9300. Toll free in the continental U.S., Hawaii, Puerto Rico, Canada, Alaska, or U.S. Virgin Islands. For calls originating elsewhere dial 703-527-3887 (collect calls accepted). Nationwide Poison control center: 1-800-222-1222.

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS-US classification

Not classified

### 2.2. GHS Label elements, including precautionary statements

#### GHS-US labelling

Labelling not applicable

### 2.3. Other hazards which do not result in classification

No additional information available

**PRAYPHOS™ SHMP 440 FG**  
**PRAYPHOS™ SHMP 441 FG GR**  
**PRAYPHOS™ SHMP 450 FG**  
**PRAYPHOS™ SHMP 451 FG GR**  
**PRAYPHOS™ SHMP 460 FG**  
**PRAYPHOS™ SHMP 461 FG GR**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**2.4. Unknown acute toxicity (GHS US)**

Not applicable

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

Name : PRAYPHOS™ SHMP FG  
CAS-No. : 68915-31-1

Name	Product identifier	%	GHS-US classification
Sodium hexametaphosphate	(CAS-No.) 68915-31-1	>= 97	Not classified

Full text of hazard classes and H-statements : see section 16

**3.2. Mixtures**

Not applicable

**SECTION 4: First-aid measures**

**4.1. Description of first aid measures**

First-aid measures after inhalation : Remove victim to fresh air. If feeling unwell, immediately seek medical attention.  
First-aid measures after skin contact : Immediately rinse with plenty of water. Remove contaminated clothing and shoes.  
First-aid measures after eye contact : In case of eye contact, immediately rinse with clean water for 10-15 minutes. If feeling unwell, immediately seek medical attention.  
First-aid measures after ingestion : Do not induce vomiting. If feeling unwell, immediately seek medical attention. Immediately rinse mouth with water.

**4.2. Most important symptoms and effects (acute and delayed)**

Symptoms/effects : No specific effects and/or symptoms have been reported or are known.

**4.3. Immediate medical attention and special treatment, if necessary**

See Heading 4.1.

**SECTION 5: Fire-fighting measures**

**5.1. Suitable (and unsuitable) extinguishing media**

Suitable extinguishing media : Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Powders.  
Unsuitable extinguishing media : None.

**5.2. Specific hazards arising from the chemical**

Fire hazard : On exposure to high temperature, may decompose, releasing toxic gases.  
Reactivity : The product is stable at normal handling and storage conditions.

**5.3. Special protective equipment and precautions for fire-fighters**

Protection during firefighting : Tight protective clothing required. Wear self-contained breathing apparatus, rubber boots and thick rubber gloves.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

General measures : Personal protective equipment (see section (s) :8.2). In the event that dust and/or fine particles are generated with this product, it is prudent to minimize prolonged inhalation exposure to these forms not to exceed the occupational exposure limit.

**6.1.1. For non-emergency personnel**

No additional information available

**6.1.2. For emergency responders**

No additional information available

# PRAYPHOS™ SHMP 440 FG

# PRAYPHOS™ SHMP 441 FG GR

# PRAYPHOS™ SHMP 450 FG

# PRAYPHOS™ SHMP 451 FG GR

# PRAYPHOS™ SHMP 460 FG

# PRAYPHOS™ SHMP 461 FG GR

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Avoid dust production. Rinse with plenty of water.

### 6.4. Reference to other sections

See section 8 and 13 for more information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe dust. Avoid contact with skin, eyes and clothing. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Remove contaminated clothing and shoes. Wash clothing before re-using. Packagings, even those that have been emptied, will retain product residue. Always obey safety warnings and handle empty packagings as if they were full.

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.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Store in a dry, cool and well-ventilated place.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Sodium hexametaphosphate (68915-31-1)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable) - 3 mg/m <sup>3</sup> (respirable dust)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (inhalable) - 5 mg/m <sup>3</sup> (respirable dust)

Additional information : None TLV known.

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Good ventilation of the workplace required. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate ventilation to minimize dust concentrations.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Wear protective gloves.

#### Eye protection:

Safety glasses with side shields

#### Skin and body protection:

Protective clothing (with elasticated cuffs and closed neck)

#### Respiratory protection:

Approved dust respirator (NIOSH/MSHA) should be used if airborne particles are generated when handling this material. Respiratory protection programs must comply with 29 CFR 1910.134

**PRAYPHOS™ SHMP 440 FG**  
**PRAYPHOS™ SHMP 441 FG GR**  
**PRAYPHOS™ SHMP 450 FG**  
**PRAYPHOS™ SHMP 451 FG GR**  
**PRAYPHOS™ SHMP 460 FG**  
**PRAYPHOS™ SHMP 461 FG GR**

**Safety Data Sheet**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state	: Solid
Appearance	: Hygroscopic granular.
Colour	: white
Odour	: odourless
Odour threshold	: No data available
pH	: 5.0 – 6.0 (460/461 FG/ FG GR) 6.4 – 7.2 (450/451 FG/FG GR) 6.7 – 7.2 (440/441 FG/FG GR)
Melting point	: > 630 °C
Freezing point	: No data available
Boiling point	: Not applicable
Flash point	: Not flammable
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1 - 1.4 g/cm <sup>3</sup>
Solubility	: completely soluble.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

**9.2. Other information**

No additional information available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

The product is stable at normal handling and storage conditions.

**10.2. Chemical stability**

The product is stable at normal handling and storage conditions.

**10.3. Possibility of hazardous reactions**

No.

**10.4. Conditions to avoid**

Moisture. Fire.

**10.5. Incompatible materials**

No data available.

**PRAYPHOS™ SHMP 440 FG**  
**PRAYPHOS™ SHMP 441 FG GR**  
**PRAYPHOS™ SHMP 450 FG**  
**PRAYPHOS™ SHMP 451 FG GR**  
**PRAYPHOS™ SHMP 460 FG**  
**PRAYPHOS™ SHMP 461 FG GR**

**Safety Data Sheet**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**10.6. Hazardous decomposition products**

No data available.

**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

<b>Sodium hexametaphosphate (68915-31-1)</b>	
LD50 oral rat	6600 mg/kg
LD50 dermal rabbit	> 7940 mg/kg
LC50 inhalation rat (mg/l)	No data available

Skin corrosion/irritation : Not classified  
pH: 5.0 – 6.0 (460/461 FG/ FG GR)  
6.4 – 7.2 (450/451 FG/FG GR)  
6.7 – 7.2 (440/441 FG/FG GR)

Serious eye damage/irritation : Not classified  
pH: 5.0 – 6.0 (460/461 FG/ FG GR)  
6.4 – 7.2 (450/451 FG/FG GR)  
6.7 – 7.2 (440/441 FG/FG GR)

Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified

Aspiration hazard : Not classified  
Viscosity, kinematic : No data available

Symptoms/effects : No specific effects and/or symptoms have been reported or are known.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ecology - water : This product does not present any particular risk for the environment.

**12.2. Persistence and degradability**

<b>Sodium hexametaphosphate (68915-31-1)</b>	
Persistence and degradability	No data available.

**12.3. Bioaccumulative potential**

<b>Sodium hexametaphosphate (68915-31-1)</b>	
Bioaccumulative potential	No data available.

**12.4. Mobility in soil**

<b>Sodium hexametaphosphate (68915-31-1)</b>	
Ecology - soil	No data available.

**PRAYPHOS™ SHMP 440 FG**  
**PRAYPHOS™ SHMP 441 FG GR**  
**PRAYPHOS™ SHMP 450 FG**  
**PRAYPHOS™ SHMP 451 FG GR**  
**PRAYPHOS™ SHMP 460 FG**  
**PRAYPHOS™ SHMP 461 FG GR**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**12.5. Other adverse effects**

Other adverse effects : No data available.

Other information : Phosphates are plant nutrient and as such may contribute to the growth of phytoplanktons in water.

**SECTION 13: Disposal considerations**

**13.1. Disposal methods**

Waste treatment methods : Comply with local regulations for disposal.

Product/Packaging disposal recommendations : This material when discarded in pure form is not a hazardous waste as defined by 40 CFR 261, the Resource Conservation and Recovery Act (RCRA). Dry materials may be landfilled or recycled in accordance with local, state, and federal regulations. If materials have become contaminated with other substances, dispose of in accordance with local, state, and federal regulations.

Additional information : Empty packaging can have residues or dusts and are subject to proper waste disposal, as above.

**SECTION 14: Transport information**

**Department of Transportation (DOT)**

In accordance with DOT

Not regulated

**Transportation of Dangerous Goods**

Not regulated

**Transport by sea**

Not regulated

**Air transport**

Not regulated

**SECTION 15: Regulatory information**

**15.1. US Federal regulations**

**Sodium hexametaphosphate (68915-31-1)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 302 Threshold Planning Quantity (TPQ)	No data available
--	-------------------

**15.2. International regulations**

**CANADA**

**Sodium hexametaphosphate (68915-31-1)**

Listed on the Canadian DSL (Domestic Substances List) inventory.

**EU-Regulations**

No additional information available

**National regulations**

**PRAYPHOS™ SHMP 440 FG**  
**PRAYPHOS™ SHMP 441 FG GR**  
**PRAYPHOS™ SHMP 450 FG**  
**PRAYPHOS™ SHMP 451 FG GR**  
**PRAYPHOS™ SHMP 460 FG**  
**PRAYPHOS™ SHMP 461 FG GR**

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**Sodium hexametaphosphate (68915-31-1)**

CERCLA reportable quantities : not applicable  
SARA Title III: Not applicable  
Hazard Categories Under Title III Rules (40 CFR 370):Not applicable  
RTECS/NIOSH Number: OY 3675000 / primary irritant

**15.3. US State regulations**

Component	State or local regulations
Sodium hexametaphosphate(68915-31-1)	Not applicable

**SECTION 16: Other information**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 11/14/2018  
Data sources : SDS.  
Training advice : None.

Abbreviations and acronyms:

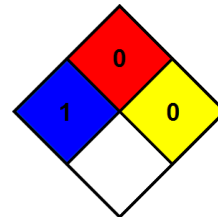
**PRAYPHOS™ SHMP 440 FG**  
**PRAYPHOS™ SHMP 441 FG GR**  
**PRAYPHOS™ SHMP 450 FG**  
**PRAYPHOS™ SHMP 451 FG GR**  
**PRAYPHOS™ SHMP 460 FG**  
**PRAYPHOS™ SHMP 461 FG GR**

**Safety Data Sheet**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

ADN: European Agreement concerning international carriage of Dangerous goods by Inland waterways  
 ADR: European Agreement concerning international carriage of Dangerous goods by Road  
 AF : Assessment factor  
 BCF : Bioconcentration factor  
 Bw: Body weight  
 CAS: Chemical Abstracts Service  
 CLP : Classification, labelling, packaging  
 CSR: Chemical Safety Report  
 DMEL : Derived maximum effect level  
 DNEL: Derivative No effect Level  
 EC: European Community  
 ELV : Emission limit values  
 EN: European Norm  
 EUH: European Hazard Statement  
 EWC : European Waste catalogue  
 IATA: International Air Transport Association  
 ICAO: International Civil Aviation Organization  
 IMDG: International Maritime Dangerous Goods  
 LC50: Median lethal concentration  
 LD50 : Median lethal dose  
 NOAEL : No-observed-adverse-effect-level  
 NOEC : No observed effect concentration  
 NOEL : No observed effect level  
 OEL : Operator exposure level  
 PBT: Persistent, bioaccumulative, Toxic  
 PEC : Predicted effect level  
 PNEC: Predicted No effect Concentration  
 REACH : Registration, evaluation and autorisation of chemicals  
 RID: Regulations concerning the international carriage of dangerous goods by rail  
 STEL: Short Term Exposure Limit  
 TWA : Time weighted average  
 vPvB: Very persistent, very bioaccumulative

- NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.
- NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



**Hazard Rating**

- Health : 1 Slight Hazard - Irritation or minor reversible injury possible
- Flammability : 0 Minimal Hazard - Materials that will not burn
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

*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. DISCLAIMER OF LIABILITY The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.*