Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identification

Product Name: NUTRIFOS® 088, NUTRIFOS® BC, NUTRIFOS® POWDER
Reference Number: AST10025
Date: September 4, 2015

Use of the ingredient or preparation

Food ingredient

Company information

ICL PERFORMANCE PRODUCTS LP
622 Emerson Road - Suite 500
St. Louis, Missouri 63141

Emergency telephone: In USA call CHEMTREC: 1 800 424 9300
Outside the USA, including ships at sea, call CHEMTREC's international and maritime telephone number (collect calls accepted): +1 (703) 527-3887

In Canada call CANUTEC: 1 613 996 6666

General Information: +1 800 244 6169 (Worldwide)

2. HAZARDS IDENTIFICATION

GHS – This product does not meet the criteria for classification under GHS

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	CAS No.	EINECS No.
Sodium Tripolyphosphate Anhydrous	7758-29-4	231-838-7
*Tetrasodium Pyrophosphate (TSPP)	7722-88-5	231-767-1

Due to the manufacturing processes used to produce STPP, the similar substance of Tetrasodium Pyrophosphate (TSPP) is likely to be present at a typical low level.

4. FIRST AID MEASURES

General

Likely Routes of Exposure: Skin contact and inhalation

Eye Contact

Immediate first aid is not likely to be required. However, this material can be removed with water. Remove material from eyes, skin and clothing. Wash heavily contaminated clothing before reuse.

Skin contact

Immediate first aid is not likely to be required. However, this material can be removed with water. Remove material from eyes, skin and clothing. Wash heavily contaminated clothing before reuse.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion

Immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice

5. FIRE FIGHTING MEASURES

Extinguishing media

Not combustible. No special requirement.

Unsuitable extinguishable media

Not combustible. No special requirement.

Exposure hazards

None known.

Protective equipment

As a general precaution, firefighters & others exposed, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid unnecessary exposure and remove all material from eyes, skin and clothing.

Environmental precautions

Small quantities: Avoid discharge into the environment.
Large quantities: Avoid discharge into the environment.

Method for cleaning up

In case of spill, sweep, scoop or vacuum and remove and place in containers. If possible, complete cleanup on a dry basis. After all practical dry cleanup has been done, flush residual spill area with water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

7. HANDLING AND STORAGE

Handling

Avoid breathing dust. Keep container closed. Use only with adequate ventilation.
Emptied container retains product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Engineering measures

Provide natural or mechanical ventilation to minimize exposure. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment. Consult National Fire Protection Association (NFPA) Standard 91 for design of exhaust systems.

Storage

Store in a cool, dry place to maintain product performance.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure limit

OSHA and ACGIH have not established specific exposure limits for this material. However, OSHA and ACGIH have established limits for particulates not otherwise regulated (PNOR) and particulates not otherwise classified (PNOC) which are the least stringent exposure limits applicable to dusts.

ACGIH TLV 10 mg/m^3 (inhalable) 8-hr TWA, 3 mg/m^3 (respirable) 8-hr TWA
OSHA PEL 15 mg/m^3 (total dust) 8-hr TWA, 5 mg/m^3 (respirable) 8-hr TWA

Due to the manufacturing processes used to produce STPP, the similar substance of Tetrasodium Pyrophosphate (TSPP) is likely to be present at a typical low level which has the following airborne exposure guidelines:

State	Standard	Limit
Australia	Occupation Exposure Limit	5 mg/m^3 8-hr. TWA
Belgium	Occupation Exposure Limit	5 mg/m^3 8-hr. TWA
Denmark	Occupation Exposure Limit	5 mg/m^3 8-hr. TWA
Finland	Occupation Exposure Limit	5 mg/m^3 8-hr. TWA, 3 mg/m^3
France	Occupation Exposure Limit	VME 5 mg/m^3
Norway	Occupation Exposure Limit	5 mg/m^3 8-hr. TWA
Switzerland	Occupation Exposure Limit	MAK – week 5 mg/m^3
United Kingdom	Occupation Exposure Limit	5 mg/m^3 8-hr TWA
United States	Occupation Exposure Limit	5 mg/m^3 8-hr. TWA

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

Respiratory protection

Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure limits are exceeded. Consult the respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Refer to OSHA 29 CFR 1910.133 or European Standard EN 149.

Hand/Skin protection

Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

Eye protection

This product does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact. Refer to OSHA 29 CFR 1910.133 or European Standard EN166.

9. PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance: White Powder or Granules

b) Odor: None
c) Odor threshold: Undetermined.
d) pH: 9.7-10.1
e) Melting point/freezing point: Begins to melt incongruently @ 552 °C;
Completely melted @ 622 °C
f) Initial boiling point and boiling range: Undetermined.
g) Flash point: Undetermined
h) Evaporation rate: Undetermined.
i) Flammability (solid, gas) : Undetermined.
j) Upper/lower flammability or explosive limits: Undetermined.
k) Vapor pressure: Undetermined.
l) Vapor density: Undetermined.
m) Relative density: Powder - 50-65; granular - 43-52 (medium dense)
n) Solubility(ies) : (g/100 g H2O): 16.0 @ 0 °C,
14.8 @ 25 °C,
16.7 @ 60 °C,
22.2 @ 80 °C,
32.2 @ 100 °C
o) Practically insoluble @ 25 °C
p) Partition coefficient: n-octanol/water: Undetermined.
q) Auto-ignition temperature: Undetermined.
r) Decomposition temperature: Undetermined.
s) Viscosity: Undetermined.

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

Product is stable under normal conditions of storage and handling.

Conditions to avoid

None known.

Materials to avoid

None known.

Hazardous decomposition

None known.

11. TOXICOLOGICAL INFORMATION

The dry powder may cause foreign body irritation in some individuals. Excessive inhalation of dust may be annoying and can mechanically impede respiration. The high alkalinity of tetrasodium pyrophosphate (TSPP) may cause upper respiratory tract irritation. Prolonged contact with the dry powder may cause drying or chapping of the skin.

Laboratory data

Data from ICL Performance Products LP single-dose (acute) animal studies with this material are given below:

Oral - rat LD_{50} - 5,400 mg/kg; practically non-toxic
Dermal - rabbit LD_{50} - > 7,940 mg/kg; practically non-toxic
Eye Irritation - rabbit - 3.3/110.0; slightly irritating
Skin Irritation - rabbit - 0-0/8.0 (24-hr exp.); not irritating

Rats fed Sodium Tripolyphosphate Anhydrous in their diet for two years exhibited decreased growth, increased kidney/body weight ratios, and kidney changes. No birth defects were noted in rabbits given Sodium Tripolyphosphate Anhydrous orally during pregnancy. No effects were seen on the ability of male and female rats to reproduce when fed Sodium Tripolyphosphate Anhydrous for 3 successive generations. Sodium Tripolyphosphate Anhydrous has generally produced no genetic changes in a variety of standard tests using animals and animal or bacterial cells. Genetic changes were reported in a standard test using yeast cells.

Due to the manufacturing processes used to produce STPP, the similar substance of Tetrasodium Pyrophosphate (TSPP) is likely to be present at a typical low level.

Tetrasodium pyrophosphate

Oral - rat LD_{50}:	3,770 mg/kg; slightly toxic
Dermal - rabbit LD_{50}:	> 7,940 mg/kg; practically nontoxic
Eye Irritation - rabbit:	43.0/110.0; extremely irritating
Skin Irritation - rabbit (24-hr exp.):	0.0/8.0; non-irritating

Rats fed tetrasodium pyrophosphate in their diet for four months showed a reduced weight gain, urinary changes, increased organ-to-body weight ratios, and slight kidney damage. No birth defects were reports in rabbits, hamsters, mice or rats given this material orally during pregnancy. Tetrasodium pyrophosphate produced no genetic changes in standard tests using bacterial and yeast cells.

12. ECOLOGICAL INFORMATION

Environmental toxicity

The following data have been classified using the criteria adopted by the European Economic Community (EEC) for aquatic organism toxicity.

Invertebrate: 48-hr EC_{50} Daphnia magna: > 1000 mg/L; Practically Nontoxic

Available toxicity data for similar materials suggest that this material would be practically nontoxic to fish (LC_{50} or EC_{50} > 100 mg/L). No definitive algal data was available for this material.

Environmental fate

ICL Performance Products LP has not conducted biodegradation studies with this product since when dissolved / hydrolyzed in water it yields completely mineralized materials.

13. DISPOSAL CONSIDERATIONS

European waste catalog number

The data provided in this section is for information only. Please apply the appropriate classification for your waste.

06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

Disposal Considerations

This material when discarded is not a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Dry material may be landfilled or recycled in accordance with local, state and federal regulations. Consult your attorney or appropriate regulatory officials for information on such disposal.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Road/Rail, Sea and Air

IMDG/UN	Not regulated for transport
ICAO/IATA	Not regulated for transport
RID/ADR	Not regulated for transport
Canadian TDG	Not regulated for transport
US DOT	Not regulated for transport

15. REGULATORY INFORMATION

Chemical Inventory

Listed:

- USA TSCA
- Canada DSL
- EC
- Australia (AICS)
- Japan (ENCS)
- China (IECSC)
- Korea (KECI)
- Philippines (PICCS)
- New Zealand (NZIOCL)

WHMIS Classification: not controlled

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370):	Not Applicable
Section 302 Extremely Hazardous Substances:	Not Applicable
Section 313 Toxic Chemical(s):	Not Applicable
CERCLA Reportable Quantity:	Not Applicable

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation and the MSDS contain all the information required by the Canadian Controlled Products Regulation.

Refer to Section 11 for OSHA Hazardous Chemical(s) and Section 13 for RCRA classification.

16. OTHER INFORMATION

	Health	Fire	Reactivity	
Suggested NFPA Rating	1	0	0	
Suggested HMIS Rating	1	0	0	F F= Safety glasses, synthetic apron, gloves and dust respirator

Reason for revision: Sections 1, 13, 15 Supersedes MSDS dated: May 10, 2015