



Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identification

Product Name: TRISODIUM PHOSPHATE ANHYDROUS
Reference Number: AST10064
Date: 23 May 2003

Use of the substance or preparation

Industrial and household cleaners, water conditioner, photograph developer bath ingredient, paint remover, denture cleaners, emulsifier and pH control agent for foods. May be used to treat drinking water.

Company/Undertaking Identification

Worldwide Hqts
ASTARIS LLC
622 Emerson Road - Suite 500
St. Louis, Missouri 63141

Europe Hqts
ASTARIS S.r.l.
Via Brescia 26
20063 Cernusco sul Naviglio MI
Italy

Emergency telephone

In Europe call +39 (0) 3 568 5123
In USA call CHEMTREC: 1 800 424 9300
In Canada call CANUTEC: 1 613 996 6666

General Information: +39 (0) 2 921 02442 (Europe)
+1 800 244 6169 (Worldwide)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Composition

<u>Substance</u>	<u>CAS No.</u>	<u>%w/w</u>	<u>EINECS No.</u>	<u>Risk Phrase</u>
Trisodium Phosphate Anhydrous	7601-54-9	100	231-509-8	R34R37/38 R41

3. HAZARDS IDENTIFICATION

Classification of the substance/preparation

EC Classification Xi - Irritant
Safety Phrase S26 S36/37/39

Human Health Effects

This product causes eye burns and may cause skin irritation. Inhalation of dust may cause coughing and sneezing. Inhalation may cause respiratory irritation. Ingestion of this product may

cause severe nausea, vomiting, abdominal discomfort and burning sensation.

Environmental Effects

This material is not expected to product any significant adverse environmental effects when recommended use instructions are followed.

4. FIRST AID MEASURES

WARNING STATEMENTS

DANGER!
CAUSES EYE IRRITATION
MAY CAUSE RESPIRATORY TRACT IRRITATION

General

Treatment is symptomatic and supportive. The product causes eye and skin irritation. May be harmful if swallowed. This product is destructive to mucous membranes.

Eye contact

In case of contact with eyes, immediately flush the eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation, pain, swelling, lacrimation, or photophobia persists.

Skin contact

Immediately remove this material from skin and wash with plenty of water. Remove contaminated clothing. Wash clothing and thoroughly clean shoes before reuse.

Inhalation

Inhalation of the dust may cause coughing and sneezing. Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention immediately. Contact a Poison Control Center. Swallowing this product may cause severe nausea, vomiting, abdominal discomfort, and burning sensation.

5. FIRE FIGHTING MEASURES

Extinguishing media

Non-combustible
No special requirement.
To extinguish fire use water spray, dry chemical, carbon dioxide, or appropriate foam

Unsuitable extinguishable media

Non-combustible
No special requirement.

Exposure hazards

No special considerations

Protective equipment

As a general precaution, firefighters and others exposed, wear self-contained breathing

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 environmental – See section 15

Method for cleaning up

Sweep, scoop or vacuum spill material, contaminated soil and other contaminated material and place in clean, dry containers for removal. If possible, complete cleanup on a dry basis.

7. HANDLING AND STORAGE

Handling:

Do not get in eyes, on skin, or on clothing.

Avoid breathing dust.

Do not taste or swallow.

Use only in adequate ventilation.

Wash thoroughly after handling

Remove material from clothing.

Engineering measures

Ensure adequate ventilation. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

Storage

Store in cool, dry place to maintain product performance. Product should be stored in sealed containers and be kept free of water due to product corrosivity.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure limit

ACGIS 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

Respiratory protection

Avoid breathing dust. In case of insufficient ventilation, use approved respiratory protective equipment as described in OSHA 29 CFR 1910.134 or European Standard EN149. A vapor respirator is recommended.

Hand/Skin protection

Wear protective gloves is recommended; wash hands and contaminated skin thoroughly after handling.

Eye protection

Wear appropriate protective eyeglasses or chemical safety goggles as described in OSHA eye and face regulation in 29 CFR 1910.133 or European Standard EN166.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Chemical Formula:	Na ₃ PO ₄
Form:	Free-flowing granular product
Color:	White
Odor:	Odorless

Important health, safety and environmental information

pH:	11.5 – 12.0 (as a 1% solution)
Specific Gravity	2.54
Melting Point	1340 °C
Solubility in Water:	(g./100 g. H ₂ O): 5.4 @ 0 degrees C 14.5 @ 25 degrees C 23.3 @ 40 degrees C 54.3 @ 60 degrees C 94.6 @ 100 degrees C

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

Store product in dry areas away from moisture. This product could be corrosive to aluminum surfaces due to high pH. When wet, mild steel and brass may be corroded.

Materials to avoid

Incompatible with strong mineral acids, aluminum and moisture.

Hazardous decomposition

Oxides of sodium and phosphorus may form when heated to decomposition

11. TOXICOLOGICAL INFORMATION

Laboratory data

Data from Astaris single-dose (acute) animal studies with this material are given below:

Oral - rat LD50:	4,150 mg/kg; slightly toxic
Dermal - rabbit LD50:	>7,940 mg/kg; practically nontoxic
Eye Irritation - rabbit:	corrosive
Skin Irritation - rabbit:	2.2/8.0 (24-hr. exp.); slightly irritating

This product produced no mutagenic effects in standard assays using fruit flies.

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.

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Invertebrate: 50-hr EC50 Daphnia magna:	177 mg/L; Practically Nontoxic
Warmwater fish: 96-hr LC50 Bluegill sunfish:	220 mg/L; Practically Nontoxic
Coldwater fish: 96-hr LC50 Rainbow trout:	120 mg/L; Practically Nontoxic

No definitive algal data was available for this material.

Environmental fate

Inorganic compounds in contact with the soil, sub-surface or surface waters may be taken up by plants and utilized as essential nutrients. Phosphates may also form precipitates, usually with calcium or magnesium. The resultant compounds are insoluble in water and become a part of the soil or sediment. The term biodegradability, as such, is not applicable to inorganic compounds.

13. DISPOSAL CONSIDERATIONS**European waste catalog number**

Unknown

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	Environmentally hazardous substance, solid, n.o.s., UN 3077, Class 9, PG III
ICAO/IATA passenger aircraft	Environmentally hazardous substance, solid, n.o.s., UN 3077, Class 9, PG III
RID/ADR	Unknown
Canadian TDG	Sodium Phosphate Tribasic, NA9148, Class 9.2, PG III*
US DOT	Environmentally hazardous substance, solid, n.o.s. (contains sodium phosphate, Tribasic), UN 3077, 9, PG III*

+ Applies only to packages containing a Reportable Limit of 230 kg or more

* Applies only to a package containing a Reportable Quantity (RQ) of 5000 lbs or more.

15. REGULATORY INFORMATION**EC Label**

Hazard symbol:	Xi - Irritant
R34	Causes burns
R37/38	Irritating to respiratory system and skin
R41	Risk of serious damage to eyes
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical attention
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection

Chemical Inventory

USA TSCA:	Listed
Canada DSL:	Listed

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EC: Listed
Japan Listed
Australia Listed
Korea Listed
Philippines Listed
China Listed

Other information

Germany:
WHMIS Classification

WGK = 1
D2(B) – Materials Causing
Other Toxic Effects

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370):

Section 302 Extremely Hazardous Substances:

Section 313 Toxic Chemical(s):

Immediate

Not Applicable

Not Applicable

CERCLA Reportable Quantity: 5,000 lb. RQ of sodium phosphate, tribasic

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.

16. OTHER INFORMATION

	<u>Health</u>	<u>Fire</u>	<u>Reactivity</u>	<u>Additional Information</u>
Suggested NFPA Rating	3	0	0	
Suggested HMIS Rating	3	0	0	G G = safety glasses, gloves, vapor respirator

Reason for revision: MSDS review

Supersedes MSDS dated: December, 2002

Drafted in accordance with ECC Dir 2001/58/EC

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