

Safety data sheetacc. to 1907/2006/EC, Article 31 (REACH),
1272/2008/EC (CLP) and 453/2010/EC

Printing date 16.07.2012

Version number 1

Revision: 16.07.2012

*** 1 Identification of the substance/mixture and of the company/
undertaking**

- . **1.1 Product identifier**
- . Trade name Trisodium phosphate
Artikelnummer: BK1151A
- . **Article number:** BK1151A
- . **CAS Number:**
7601-54-9
- . **EC number:**
231-509-8
- . **Registration number** 01-2119489800-32-0003
- . **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- . **Application of the substance / the preparation**
Metal surface treatment
Detergents
Water conditioner
Additive for cosmetic or pharmaceutical preparations
Food additives
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
BK Giulini GmbH www.bk-giulini.com
Works Ladenburg, Dr.A.Reimann-Str.2 Tel: +49 6203/77-0
D-68526 Ladenburg Fax: +49 6203/77-7256
- . **Information:**
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Works Ladenburg Phone +49 6203 / 77-7172
Works Ludwigshafen Phone +49 621 / 5709-6523
MSDS@BK-Giulini.com
- . **1.4 Emergency telephone number:**
Works Ladenburg Phone +49 6203 / 77-112
Works Ludwigshafen Phone +49 621 / 5709-112

*** 2 Hazards identification**

- . **2.1 Classification of the substance or mixture**
- . **Classification according to Regulation (EC) No 1272/2008**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.
- . **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
Xi; Irritant
R36/38: Irritating to eyes and skin.
- . **Classification system:**
This product is not listed in EC directive 93/72/EC.
Labelled on the basis of internal knowledge.
- . **2.2 Label elements** EINECS Number: 231-509-8
- . **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.

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. Hazard pictograms

GHS07

. Signal word Warning**. Hazard statements**

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

. Precautionary statements

- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P261 Avoid breathing dust.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.

. 2.3 Other hazards**. Results of PBT and vPvB assessment**

- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.

*** 3 Composition/information on ingredients**

- . **3.1 Chemical characterization: Substances**
- . **CAS No. Designation:**
7601-54-9 Trisodium monophosphate
- . **Identification number(s):**
- . **EC number:** 231-509-8
- . **Dangerous components:** Void
- . **SVHC** No

4 First aid measures

- . **4.1 Description of first aid measures**
- . **After inhalation :** Supply fresh air; consult doctor in case of symptoms.
- . **After skin contact :**
Immediately wash with soap and water and rinse thoroughly.
If skin irritation continues, consult a doctor.
- . **After eye contact :**
Rinse opened eye for several minutes under running water. Then consult doctor.
- . **After swallowing :**
Rinse out mouth and then drink plenty of water (approx. 500 ml).
In case of persistent symptoms consult doctor.
- . **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.

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- . **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- . **5.1 Extinguishing media**
- . **Suitable extinguishing agents**
Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water jet. Fight larger fires with foam.
- . **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- . **5.2 Special hazards arising from the substance or mixture** None
- . **5.3 Advice for firefighters**
- . **Protective equipment:** Wear alkaline resistant protective clothing.

6 Accidental release measures

- . **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Avoid causing dust.
- . **6.2 Environmental precautions:**
Do not allow concentrated solutions to enter drainage system, surface or ground water.
- . **6.3 Methods and material for containment and cleaning up:**
Collect mechanically.
Dispose of the material collected according to regulations.
- . **6.4 Reference to other sections**
See Section 8 for information on personal protection equipment.

7 Handling and storage

- . **7.1 Precautions for safe handling**
Prevent formation of dust.
Keep containers tightly sealed.
- . **Information about protection against explosions and fires:**
The product is not flammable
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage**
- . **Requirements to be met by storerooms and containers:**
Unsuitable material for container: aluminium.
Do not use light alloy containers.
- . **Information about storage in one common storage facility:**
Do not store together with acids.
- . **Further information about storage conditions:**
Store in cool, dry conditions in well sealed containers.
This product is hygroscopic.
Protect from humidity and keep away from water.
- . **VCI-Storage class** 13
- . **7.3 Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

. 8.1 Control parameters

- . **Components with critical values that require monitoring at the workplace:**
Not required.

. **DNELs**

7601-54-9 Trisodium monophosphate

Inhalative General population 3.04 mg/m³ (long-term exposure, systemic effects)
Worker 4.07 mg/m³ (long-term exposure, systemic effects)

. **PNECs**

7601-54-9 Trisodium monophosphate

Sewage treatment 50 mg/L (sewage-treatment plant)
Water 0.05 mg/L (fresh water)
0.005 mg/L (sea water)
0.5 mg/L (intermittent release)

- | CAS No. | Designation of material | % | Type | Value | Unit |
|------------------------------|---------------------------|---|------------------------|-------|-------------------|
| General dust exposure limit, | measured as alveolic part | | German TRGS 900 (2009) | 3 | mg/m ³ |

. **Additional information:**

The lists that were valid during compilation were used as a basis.

. 8.2 Exposure controls

. **Personal protective equipment**

. **General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Instantly remove any soiled and impregnated garments.

. **Breathing equipment:**

Dust mask according to DIN EN 140 or 149 (FFP1 or FFP2)
Short term filter device: ABEK-filter
Filter P1. (For solid particles, DIN 3181)

. **Protection of hands:**

Protective gloves:
In case of spray contact at least protection index 2 recommended, according to more than 30 min. penetration time (EN 374).
Layer thickness of gloves at least: 0.4 mm
In case of prolonged and intensive contact protection index 6 recommended, according to more than 480 min. penetration time (EN 374).
Layer thickness of gloves at least: 0.7 mm

. **Material of gloves**

Butyl rubber, BR
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
Natural rubber, NR
Chloroprene rubber, CR
Neoprene gloves

. **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- . **Eye protection:** Tightly sealed safety glasses (DIN 58211, EN 166)

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. **Body protection:** Alkaline resistant protective clothing

* 9 Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form: Crystalline powder

Colour: White

. Smell: Odourless

. Odour threshold: Not determined.

. pH-value (10 g/l) at 20°C: ca. 11.6

. Change in condition

Melting point/Melting range: ca. 1600 °C

Boiling point/Boiling range: Not determined

. Flash point: Not applicable

. Inflammability (solid, gaseous) Product is not inflammable.

. Ignition temperature: Not applicable

. Decomposition temperature: Not determined

. Danger of explosion: Product is not explosive.

. Critical values for explosion:

Lower: Not applicable

Upper: Not applicable

. Oxidizing properties: None

. Steam pressure: Not applicable.

. Density

Settled apparent density at 20°C ca. 1150 kg/m³

Evaporation rate: Not applicable.

. Solubility in / Miscibility with

Water at 20°C: ca. 80 g/l

. Partition coefficient (n-octanol/
water):

ca. -2 log POW

. Viscosity:

dynamic: Not applicable.

kinematic: Not applicable.

. 9.2 Other information

No further relevant information available.

10 Stability and reactivity

. 10.1 Reactivity

. 10.2 Chemical stability

. Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

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- . **10.3 Possibility of hazardous reactions**
Reacts with light alloys in the presence of moisture to form hydrogen
- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:** May react vigorously with strong acids.
- . **10.6 Hazardous decomposition products:** No dangerous decomposition products known

* 11 Toxicological information

- . **11.1 Information on toxicological effects**
- . **Acute toxicity:**
- . **LD/LC50 values that are relevant for classification:**
7601-54-9 Trisodium monophosphate
Oral LD50 >2000 mg/kg (rat)
- . **Primary irritant effect:**
- . **on the skin:** Irritant for skin and mucous membranes.
- . **on the eye:** Irritant effect.
- . **Sensitization:** No sensitizing effect known.
- . **Additional toxicological information:**
All ingredients are approved food additives according to EC directive 95/2/EC and 2001/5/EC.
Long lasting skin contact may cause degreasing of the skin and may cause therefore dermatitis.
- . **Repeated dose toxicity** No further relevant information available.

* 12 Ecological information

- . **12.1 Toxicity**
- . **Aquatic toxicity:**
7601-54-9 Trisodium monophosphate
EC50 177 mg/L (daphnia magna) (50 h)
LC0 (48 h) 2400 mg/L (golden orfey)
LC50 (96 h) 120 mg/L (Onchorhynchus mykiss) (OECD 203)
 220 mg/L (Bluegill) (OECD 203)
- . **Type of test Effective concentration Method Assessment**
- Acute fish toxicity LC0: 2400 mg/l (Golden orfey, 48 h)
 LC50: 220 mg/l (Bluegill sunfish, 96 h, OECD 203)
 LC50: 120 mg/l (Rainbow trout, 96 h, OECD 203)
- Daphnia toxicity EC50: 177 mg/l (Daphnia magna, 50 h)
- . **12.2 Persistence and degradability** No further relevant information available.
- . **Other information:**
Inorganic salts are basically not biodegradable.
Easy elimination possible by flocculation or adsorption by sludge.
- . **Behaviour in environmental systems:**
- . **Components:**
Product should not get in higher quantities into waste water because it may act as a plant nutrient and precipitate heavy metals.
- . **12.3 Bioaccumulative potential**
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.
- . **12.4 Mobility in soil** No further relevant information available.

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- . **Ecotoxicological effects:**
- . **Other information:**
No COD, no BOD, no AOX
No VOC according to EC-directive 1999/13/EC
- . **Additional ecological information:**
- . **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
- . **12.5 Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.
- . **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

- . **13.1 Waste treatment methods**
- . **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Must be specially treated in adherence to official regulations.
- . **European waste catalogue**
16 03 03* inorganic wastes containing dangerous substances
- . **Uncleaned packaging:**
- . **Recommendation:**
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
Dispose of packaging according to regulations on the disposal of packagings.
- . **Recommended cleaning agent:** Water, if necessary with cleaning agent.

14 Transport information

- . **14.1 UN-Number**
- . **ADR, IMDG, IATA** Void
- . **14.2 UN proper shipping name**
- . **ADR, IMDG, IATA** Void
- . **14.3 Transport hazard class(es)**
- . **ADR, IMDG, IATA**
- . **Class** Void
- . **14.4 Packing group**
- . **ADR, IMDG, IATA** Void
- . **14.6 Special precautions for user** Not applicable.
- . **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- . **Transport/Additional information:** Not dangerous according to the above regulations.
- . **UN "Model Regulation":** -

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* 15 Regulatory information

- . **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- . **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- . **Hazard pictograms**



GHS07

- . **Signal word** Warning
- . **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
- . **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing dust.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- . **National regulations**
- . **Information about limitation of use:**
Employment restrictions concerning young persons must be observed.
- . **Decree to be applied in case of technical fault:**
Major accidents hazards regulation, annex:
not applicable (German regulation)
- . **Water hazard class:** WGK 1 : low water hazard risk (German regulation)
- . **Other regulations, limitations and prohibitive regulations**
The general dust exposure limit of 3 mg/m³, measured as alveolic part has to be observed (German TRGS 900, 2006).
- . **Chemical inventories:**
Europe (EINECS): yes
Australia (AICS): yes
Canada (DSL): yes
Japan (ENCS): yes
China (IECSC): yes
Korea (KECI): yes
USA (TSCA): yes
- . **15.2 Chemical safety assessment:**
Exposure scenarios on request.

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A Chemical Safety Assessment has been carried out.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. **Department issuing data specification sheet:**

Product Safety and Regulatory Affairs

. **Contact:** MSDS@BK-Giulini.com

. **Abbreviations and acronyms:**

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

. *** Data compared to the previous version altered.**

DISTRIBUTOR COMPANY INFORMATION			
name	BRENNTAG N.V.	BRENNTAG Nederland B.V.	BRENNTAG SOUTH AFRICA (PTY) LTD
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activities	Distribution and export of chemicals and ingredients		
VAT number	BE0405317567	NL001375945B01	4740102209
emergency number(24/365)	+32 (0)56 77 69 44	+31 (0)78 6544 944	+27 (0)21 0201800
management systems: certifications	ISO 9001, ISO 14001, ISO 22000, FSSC 22000, GMP+ Feed, ESAD	ISO 9001, ISO 14001, ISO 22000, FSSC 22000, OHSAS 18001, GMP+ Feed, ESAD, AEO	ISO 9001, FSSC 22000