



German metal Surface treatment Chemicals Co.
Research and Development Department
Detergent and disinfectant Division

MATERIAL SAFETY DATA SHEET

Biostar 52 super Liquid Laundry Sour

MANUFACTURER:

German metal surface treatment (SUGEST)

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1. Product and Company Identification

NAME **Biostar 52 super**
USE used for neutralizing residual alkalinity of laundry
LABEL **Biostar 52 super**
Company German metal surface treatment chemicals co.

2. Product Description

Biostar 52 super is liquid Laundry Sour an institutional liquid designed to leave fabrics soft and pliable while neutralizing residual alkalinity, thus preventing bed sores or skin irritation. A must for nursing homes, hospitals, shirt laundries, uniform washing, or any application where a high alkaline detergent is used.

3. Hazards Identification

Emergency Overview

Classified as non-hazardous according to Work safe Australia

Health Hazards (Acute and Chronic): Corrosive to skin and eyes; prolonged inhalation of this product may cause ulcers to the upper respiratory tract. No long term health effects are known at this time.

Potential Health Effects

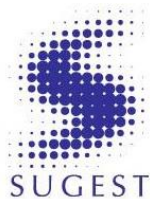
HMIS: **Health** 3 **Flammability** 1 **Reactivity** 0 **Personal Protection:** E
 4 = extreme 3 = high 2= moderate 1 = slight

Inhalation: Corrosive and irritating to upper respiratory tract. Adequate ventilation should be present for prolonged usage in small enclosed areas.

Skin contact: Corrosive and irritating; chemical burns may result from contact.

Eye contact: Corrosive; contact with eyes is painful and irritating and will cause chemical burns

Ingestion: Corrosive and irritating to digestive tract; may cause vomiting.



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Medication Conditions Aggravated by Exposure: May aggravate pre-existing skin, eye, or respiratory disorders.

4. Chemical Composition

Ingredient	CAS No	Percent
Trihydroxylphosphine oxide	7664-38-2	1 - 10
Oxocarbinic acid	64-18-6	1- 5
Silicofluoric acid	16961-83-4	10 - 20
Amines, coco alkyldimethyl, N-oxides	1643-20-5	0.1 - 2
Isopropyl alcohol	67-63-0	0.1 - 1
Water	7732 – 18 - 5	To 100

5. Physical and Chemical Properties

Test	Specification
Description	Clear floral perfumed blue liquid
pH as it is at 25 °C	1.5 - 2.5
Density at 20 °C	1.00 – 1.10 g/cm ³

6. First Aid Measures

Inhalation: Remove to fresh air.

Skin contact: Remove contaminated clothing and footwear. For skin contact, flush with large amounts of water. irritation persists seek immediate medical attention.

Eye contact: In case of contact with the eyes, rinse immediately with plenty of water for 10 minutes, and if irritation persists, seek immediate medical attention.

Ingestion: Seek medical advice. DO NOT induce vomiting unless directed to do so by medical personnel. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.

7. Fire Fighting Measures

Fire: Non flammable , avoid excessive heat and ignition sources

Fire Extinguishing Media: water spray foam carbon dioxide (CO₂) dry chemical.

Hazardous combustion products: In event of fire created carbon oxides may be formed.

Materials to avoid: avoid oxidizing agents.



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8. Accidental Release Measures

Use personal protection recommended in Section 10 , isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Prevent runoff from entering drains, sewers or waterways.

Clean-up methods: Eliminate all ignition sources. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dilute with water and rinse into sanitary sewer system or dispose into suitable container.

9. Handling and Storage

Handling: Before use carefully read the product label. Use of safe work practices are recommended to avoid eyes or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated area (eg. If container is damaged).

Storage: Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Keep away from oxidizing agents, acids and foodstuffs. Ensure containers are adequately labeled and protected from physical damage when not in use.

Storage Conditions: Store in a cool, dry and good ventilated place. Keep container tightly closed after opening. Prevent direct sun light or ignition sources.

Temperature Limit: max 35 °C.

Maximum Storage Period: 24 Months under standard storage conditions.

Container Type Packaging must comply with requirements of Hazardous Substances (Packaging) Regulations 2001.

For information on product shelf life, please review labels on container.

10. Exposure Controls/Personal Protection

Exposure Limit Values:

- Phosphoric Acid

TWA: 1 STEL: 3 (mg/m³) from ACGIH (TLV) [United States]

TWA: 1 STEL: 3 (mg/m³) from OSHA (PEL) [United States]

TWA: 1 STEL: 3 (mg/m³) from NIOSH

TWA: 1 STEL: 3 (mg/m³) [Mexico] Consult local authorities for acceptable exposure limits.

- Formic acid

TWA: 5 STEL: 10 (ppm) from ACGIH (TLV) [United States] [1999] TWA: 9 (mg/m³) from NIOSH TWA: 5 (ppm)

from NIOSH TWA: 9 (mg/m³) from OSHA (PEL) [United States] TWA: 5 (ppm) from OSHA (PEL) [United States]

TWA: 5 (ppm) [United Kingdom (UK)] TWA: 9.3 (mg/m³) [United Kingdom (UK)]³ Consult local authorities for acceptable exposure limits.

- Silicofluoric acid

TWA 2.5 mg/m³ as fluorides

TWA 2.5 mg/m³ as NIOSH

Ventilation Requirements No special ventilation requirements General room ventilation is adequate.

Respiratory protection:

Use with adequate ventilation. A respirator is not needed under normal and intended conditions of product use.

Eye/face protection: Chemical safety glasses; in combination with breathing protection. Face shield (8-inch minimum).



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Skin protection: For prolonged or repeated handling, use anti-acid gloves made of rubber, nitrile or butyl.

General Hygiene Considerations: Avoid direct contact with eyes.

11. Stability and Reactivity

Stability: Stable under normal condition

Polymerization: Hazardous polymerization does not occur

Hazardous decomposition products: May start to hydrolyze > 50 °C.

Materials to avoid: Do not mix with chlorinated, strong base and oxidizing agent products.

Conditions to avoid: Do not mix with any other product or chemical, Strong oxidizers.

12. Toxicological information

I- Phosphoric acid

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

Acute oral toxicity (LD50): 1530 mg/kg [Rat]. Acute dermal toxicity (LD50): 2740 mg/kg [Rabbit].

Chronic Effects on Humans: May cause damage to the following organs: blood, liver, skin, eyes, bone marrow.

Other Toxic Effects on Humans:

Extremely hazardous in case of inhalation (lung corrosive). Very hazardous in case of skin contact (irritant), of

ingestion, Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive).

- Formic acid

ORAL (LD50): Acute: 700 mg/kg [Mouse]. 1100 mg/kg [Rat]. 4000 mg/kg [Dog]. VAPOR (LC50): Acute: 6200 mg/m 0.25 hours [Mouse].

Chronic Effects on Humans:

May cause damage to the following organs: kidneys, the nervous system, mucous membranes, heart, brain, skin, eyes.

Other Toxic Effects on Humans:

Very hazardous in case of skin contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (permeator), of eye contact (corrosive). Slightly hazardous in case of skin contact (corrosive).

Special Remarks on Toxicity to Animals:

Lowest Published Lethal Dose: LDL [woman] - Route: Oral; Dose: 660 mg/kg

Special Remarks on Chronic Effects on Humans: May cause adverse reproductive effects based on animal test data. No human data found.

II- Silicofluoric acid

ACUTE TOXICITY:

LD50 = 200 mg/kg for guinea pig (orally)

LDLO = 140 mg/kg (with skin)



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ECOLOGICAL INFORMATION:

AQUATIC ENVIRONMENT:

Accidental spillage would suddenly reduce pH level due to the product's acidic properties. Local disastrous effects are possible. Do not discharge into the natural environment. Neutralize all waste products and follow current guidelines and legislation.

13. Disposal Considerations

Disposal method:

Industrial setting: Disposal is according to all federal, state and local authorities for restrictions on disposal of chemical waste, manage chemical, waste through an approved waste treatment facility, do not reuse empty container in accordance with current local community codes please recycle empty container whenever possible.

14. Transport information

TDG Classification: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Fluorosilicic Acid)

Class 8 UN 3264 PG III

15. Other Information

REGULATORY INFORMATION

WHMIS Classification: D2B, E

Hazard Symbol

Xn – Harmful if swallowed.

Xi – Irritant, Risk of serious damage to eyes

Safety Phrases

S8 – Keep container dry

S26- In case of contact with eye, rinse immediately with plenty of water and seek medical aid immediately

S22 -Do not breathe dust

S36/37/39 -Wear suitable protective clothing gloves and eye/face protection

S45 – In case of accident and if you feel unwell seek medical advice immediately (show label where possible)

16. Packing

Packaging type: HDPE containers, inner cap and sealed cap.

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