



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

MATERIAL SAFETY DATA SHEET

Biostar Hygitec plus

EcoCleanse & Macerator disinfectant

MANUFACTURER:

German metal surface treatment (SUGEST)

P.O. Box 2951, Riyadh 11461, K.S.A.

Tel: (00966) (01) 4647711 (20 Lines)

Fax: (00966) (01) 2170866

1. Product and Company Identification

NAME	Biostar Hygitec plus
USE	EcoCleanse & Macerator disinfectant.
LABEL	Biostar Hygitec plus
Company	German metal surface treatment chemicals co.

2. Product Description

Biostar Hygitec plus[®] is unique formula for EcoCleanse & Macerator disinfectant.

3. Hazards Identification

Emergency Overview

When used according to instructions, the product applicable to this MSDS is safe and presents no immediate or long-term health hazard. However, abnormal entry routes, such as gross ingestion, may require immediate medical attention.

Potential Health Effects

Classification (EC 1272/2008)

Physical and Chemical Hazards - Not classified.

Human health -Skin Corr. 1B – H314 Eye Dam 1 - H318

Environmental Hazards – Aquatic Chronic 3 – H412.

Classification (67/548/EEC or 1999/45/EC) - Xi;R38, R41

Hazard statements: H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effect.



Precautionary statements

P264 Wash contaminated skin thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves.

P280 Wear eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water.



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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/ doctor.

P332+P313 If skin irritation occurs: Get medical advice/ attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/ container in accordance with national regulations.

4. Chemical Composition

Ingredient	CAS No	Percent
Fatty alcohol ethoxylate	160901-19-9	1 - 10
Benzalkonium chloride	8001 – 54 - 5	1 – 5
Nonionic surfactant	Property	1 - 5
Sodium hydroxide	1310-73-2	0.1 - 2
Demineralized water	7732 – 18 - 5	To 100

5. Physical and Chemical Properties

Appearance	Clear colored liquid
Odor	Floral
pH at 20 °C	12.2 to 12.8

6. First Aid Measures

Inhalation:

Remove person to fresh air. If breathing is difficult, give oxygen and get medical attention.

Skin contact:

If irritation is experienced, flush with water. If irritation persists, get medical attention.

Eye contact:

In case of contact with the eyes, remove contact lenses if easy to do, rinse immediately with plenty of water for 15 minutes, and 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: In a fire or if heated, a pressure increase will occur and the container may burst.



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

Explosion: This solution is not considered to be an explosion hazard.

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

Special Information: Although this product has a flash point below 200 Deg. F, it is an aqueous solution containing an alcohol and does not sustain combustion.

Hazardous combustion products:

Acid and heat accelerate decomposition.

8. Accidental Release Measures

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

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools.

Environmental precautions:

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

Clean-up methods:

Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth. Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with detergent and water. Seal the container. Dispose of collected material as soon as possible.

9. Handling and Storage

Handling:

Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation.

Storage:

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

SODIUM HYDROXIDE

Long-term exposure limit (8 hours TWA); WEL Short-term exposure limit (15 minutes): WEL 2mg/m³

WEL = Workplace Exposure Limits Ingredient Comments WEL = Workplace Exposure Limits



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

Engineering controls:

Ventilation Requirements provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product. Supply sufficient replacement air to make up for air removed by exhaust systems.

Emergency shower and eyewash should be in close proximity.

Respiratory protection: None required.

Eye/face protection: None required.

Skin protection: No chemical protective gloves are required.

11. Stability and Reactivity

Stability

Stable under normal use conditions.

Conditions to Avoid: keep away from open flame, hot sources and ignition sources

Incompatibilities

Do not mix with strong acids, oxidizable materials.

Reactivity Data

May develop static charge when poured and ignite vapors.

Hazardous decomposition products:

Products may include oxides of carbon

Hazardous Polymerization

Will not occur

12. Toxicological information

Acute Toxicity

Information on toxicological effects Acute toxicity – oral ATE oral (mg/kg) 11,111.11

Acute toxicity – dermal ATE dermal (mg/kg) 110,000.0

Inhalation: Gas or vapour in high concentrations, vapours may irritate throat and respiratory system.

Symptoms following overexposure may include the following: Coughing.

Ingestion: May cause discomfort if swallowed.

Skin contact: Irritating to skin.

Eye contact: Irritating to eyes.

Ecotoxicity: Not regarded as dangerous for the environment

1- Benzalkonium chloride

LC50 Bluegill (*Lepomis macrochirus*): 0.223 - 0.46 mg/l 96 hours

12.1. Toxicity The product is not believed to present a hazard due to its physical nature

12.2. Persistence and degradability The product is biodegradable

12.3. Bioaccumulative potential Not known

12.4. Mobility in soil The product is soluble in water.

12.5. Results of PBT and vPvB assessment

The product does not contain any substance classified as PBT or vPvB.



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

13. Disposal Considerations

Disposal method:

Dispose of in accordance with federal, state, and local regulations.

US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

14. Transport information

Road Transport Notes Not Classified

Rail Transport Notes Not classified.

Sea Transport Notes Not classified.

14.1. UN number Not applicable

14.2. UN proper shipping name Not applicable

14.3. Transport hazard class(es) No transport warning sign required

14.4. Packing group Not applicable

14.5. Environmental hazards Environmentally hazardous substance / marine pollutant - No

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

15. Other Information

Safety, health and environmental regulations/legislation specific for the substance or mixture National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). EU regulations Regulation (EC) No 1907/2006 of the European Parliament and the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended) Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labelling and packaging of substance and mixtures (as amended)

Guidance Notes Workplace Exposure Limits EH40.

CHIP for everyone HSG228.

Approved classification and labelling guide (sixth edition) L131 Safety Data Sheets for Substances and Preparations.

Chemical Safety Assessment: A chemical safety assessment has been carried out.

16. Packing

Packaging type: HDPE containers and sealed cap.

DISCLAIMER: *The data contained herein are furnished for information only and are believed to be reliable. However, SUGEST and its affiliates ("SUGEST") do not assume responsibility for any results obtained by persons over whose methods SUGEST has no control. It is the user's responsibility to determine the suitability of SUGEST's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any SUGEST's products. In light of the foregoing, SUGEST specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of SUGEST's products. SUGEST further disclaims any liability for consequential or incidental damages of any kind, including lost profits.*