

SECTION I – PRODUCT AND COMPANY IDENTIFICATIONProduct name: **BSH8080**

Product Identifier: BSH8080

Relevant identified uses: Hydrogen sulphate sequestrant.

BOLLAND Y CÍA. S.A.

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Hazard pictogram(s):



Flammable Liquids (Category 4)

Acute toxicity, oral (Category 4)

Skin corrosion (Category 1B) – Serious eye damage (Category 1)

Specific target organ toxicity – single exposure (Category 1)

Specific target organ toxicity – repeated exposure (Category 2)

Short-term (acute) aquatic hazard (Category 3)

Signal word: DANGER**Hazard statements:**

H227 - Combustible liquid.

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H370 - Causes damage to organs.

H373 - May cause damage to organs through prolonged or repeated exposure.

H402 - Harmful to aquatic life.

Precautionary statements:

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 - Do not breathe fume, gas, mist, vapours or spray.

P273 - Avoid release to the environment.

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Version: 1**Emission date:** junio de 2018**Replace:** -**Created:** CIQUIME**Revised:** BOLLAND Y CÍA. S.A.

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.
 P370 + P378 - IN CASE OF FIRE: Use water spray, foam, dry chemical or carbon dioxide to extinguish.

Additional information

None.

SECTION III - COMPOSITION / INFORMATION ON INGREDIENTS

| COMPONENTS IN THE MIXTURE | % WEIGHT |
|--|----------|
| Ethylenedioxydimethanol | 20 – 10 |
| Formyl (diethylenimidoxide) | 10 – 20 |
| Terpolymer of sodium 2-propanoate and sodium ethenesulfate | 1 – 5 |
| Methanol | 5 - 15 |

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SECTION IV – FIRST AID MEASURES

| | |
|-----------------|---|
| GENERAL ADVICE: | Avoid exposure to the product, taking appropriate protective measures. Get medical advice. |
| EYE CONTACT: | Immediately flush with water for at least 15 minutes, holding eyelids apart to ensure that all eye and lid tissues rinsed. Washing eyes within several seconds is essential to achieve maximum effectiveness. If you have contact lenses, remove them after the first 5 minutes, then continue rinsing eye. Get medical advice. It can cause serious damage to the cornea, conjunctiva or other parts of the eye. |
| SKIN CONTACT: | Wash immediately after contact with water for at least 15 minutes. Do not neutralize or use substances other than water. Remove contaminated clothing and wash before reuse. |
| INHALATION: | For those providing assistance, avoid exposure. Use proper protection if necessary. Move victim and get fresh air. Keep calm. If not breathing, give artificial respiration. Get medical advice. |
| INGESTION: | DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by mouth to an unconscious person. Get medical advice. If vomiting occurs spontaneously, place victim on side to reduce the risk of aspiration. |
| SYMPTOMS: | Inhalation: may cause headache, nausea, dizziness and irritation of the respiratory tract. Skin contact: may cause severe irritation, possible burns. Eye contact: may cause serious eye damage. Ingestion: may cause gastrointestinal disorders. Prolonged or repeated |

exposure can cause kidney damage.

MEDICAL ADVICE: May require specific treatment for methanol. For more information, contact a Poison Control Center.

SECTION V – FIREFIGHTING MEASURES

EXTINGUISHING MEDIA: Use dry chemical, alcohol-resistant foam, sand or CO₂. Some foams can react with the product. DO NOT USE straight streams.

FLASH POINT: 85°C (185°F)

FLAMMABLE LIMITS: N/D

SPECIAL HAZARDS: COMBUSTIBLE. May burn but does not ignite readily. In case of fire may release irritating fumes and gases and/or toxic gases, such as carbon monoxide, oxides of phosphorus and nitrogen, and other substances derived from incomplete combustion.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: For large spills wear protective clothing against chemicals, which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

ADVICE FOR FIREFIGHTERS: Spray-water the packaging to avoid ignition or to keep them cool if exposed to excessive heat or fire. Move containers from fire area if you can do without risk.
Cool containers with flooding quantities of water until well after fire is out. Dike fire-control water for later disposal; do not scatter the material.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to a ventilated area. Use SCBA and skin and eye protection. Wear impervious gloves. Ventilate immediately, especially in low areas where vapours may accumulate. Do not allow reuse of spilled product.

ENVIRONMENTAL PRECAUTIONS: Contain spilled liquid with a dam. Prevent entry into waterways, sewers, basements or confined areas.

CONTAINMENT AND CLEANING UP: Collect the product through sand, vermiculite, or inert absorbent and completely clean or wash the contaminated area.

SECTION VII – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Do not eat, drink or smoke during handling.
Avoid contact with eyes, skin and clothing. Wash arms, hands, and nails after handling. Facilitate access to safety showers and eyewash emergency. Avoid inhalation of the product. Use PPE. Keep container closed. Use with adequate ventilation. Handle containers carefully.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store in a clean, dry, well-ventilated area. Do not store near open flames or heat sources. Good ventilation is required. It is recommended not to make pallets in height of more than 2 plastic drums, no more than 2 containers of

1000 liters and no more than 3 metallic drums. Dangerous residues may remain inside the empty drum, so it must not be reused, marketed or sold to third parties under any circumstances. The disposal of the empty drum must be done according to the applicable legal regulations.

Keep away from strong oxidizing agents, acids and bases.

Material appropriate packaging: Supplied by the manufacturer.

SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION

| | | |
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| CONTROL PARAMETERS: | REL-TWA: | 200 ppm, ethanolamine 3 ppm, methanol |
| | REL-STEL: | 250 ppm, ethanolamine 6 ppm, methanol |
| | TLV-TWA (ACGIH): | 3 ppm, ethanolamine 200 ppm, methanol 10 ppm, ethylene glycol |
| | TLV-STEL (ACGIH): | 6 ppm, ethanolamine 250 ppm, methanol |
| | TLV-C: | 100 ppm, ethylene glycol, aerosol 20 ppm, ethylene glycol, particulate 50 ppm, ethylene glycol, vapor |
| | PEL (OSHA 29 CFR 1910.1000): | 3 ppm, ethanolamine 200 ppm, methanol |
| | IDLH (NIOSH): | 6000 ppm, methanol 30 ppm, ethanolamine |
| | EXPOSURE CONTROLS: | <p>Keep workplace ventilated. The normal routine ventilation is usually adequate. Local hoods should be used for operations that produce or release large amounts of product. In low or confined areas should be provided mechanical ventilation.</p> <p>Provide showers and eyewash stations.</p> |
| PERSONAL PROTECTION EQUIPMENT, INHALATION: | <p>Where necessary, use an organic vapours (A) respirator. Special attention to oxygen levels in the air should be paid.</p> <p>If large releases occur, wear self-contained breathing apparatus (SCBA).</p> | |
| SKIN PROTECTION: | <p>When handling this product should wear impermeable protective PVC, nitrile or butyl gloves (complying with standards EN 374), clothes and safety footwear resistant to chemicals.</p> | |
| EYE AND FACE PROTECTION: | <p>Should wear safety glasses, chemical splash-proof (complying with EN 166).</p> | |

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

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| APPEARANCE: | Liquid. |
| COLOR: | N/D |
| ODOUR: | N/D |
| ODOUR THRESHOLD: | N/D |
| pH: | 8,3 ± 2,0 (5% in aqueous sc) |

| | |
|----------------------------------|--|
| MELTING POINT: | < -20°C (-4°F) |
| BOILING POINT: | N/D |
| FLASH POINT: | 85°C (185°F) |
| EVAPORATION RATE: | N/D |
| AUTO-IGNITION TEMPERATURE: | N/D |
| EXPLOSIVE LIMITS: | N/D |
| VAPOUR PRESSURE (20°C): | N/D |
| VAPOUR DENSITY (AIR=1): | N/D |
| RELATIVE DENSITY (20°C): | 1,051 ± 0,030 g/cm ³ |
| SOLUBILITY (in water, 20°C): | Soluble in water. |
| HENRY CONSTANT (20°C): | N/D |
| PARTITION COEFFICIENT (logKo/w): | N/D |
| VISCOSITY (cSt, 20°C): | < 100 |
| EXPLOSIVE PROPERTIES: | Not explosive. According to column 2 of Annex VII of REACH, this study is not required because: in the molecule no chemical groups are associated with explosive properties. |
| OXIDIZING PROPERTIES: | According to column 2 of Annex XVII of REACH, this study is not necessary because: the substance, its chemical structure is incapable of reacting exothermically with combustible materials. |
| OTHER PROPERTIES: | Refractive index: 1,377 ± 0,030 (20°C) |

SECTION X – STABILITY AND REACTIVITY

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|-----------------------------------|--|
| REACTIVITY: | It is not expected that product reactions or decomposition may occur under normal storage conditions. It does not contain organic peroxides. It is not corrosive to metals. Does not react with water. |
| CHEMICAL STABILITY: | The product is chemically stable and does not require stabilizers. No hazardous polymerization is expected. |
| CONDITIONS TO AVOID: | Avoid high temperatures. |
| HAZARDOUS DECOMPOSITION PRODUCTS: | When heated, it may release toxic and irritating vapors. In case of fire, see section 5. |
| INCOMPATIBLE MATERIALS: | Strong oxidizing agents, acids and bases. |

SECTION XI – TOXICOLOGICAL INFORMATION

| | |
|---------------------|--|
| ROUTES OF EXPOSURE: | Inhalation, skin and eye contact. |
| ACUTE EFFECTS: | Inhalation: may cause headache, nausea, dizziness and irritation of the respiratory tract. |

Skin contact: may cause severe irritation, possible burns.
 Eye contact: may cause serious eye damage.
 Ingestion: may cause gastrointestinal disorders. Prolonged or repeated exposure can cause kidney damage.

CARCINOGENICITY AND MUTAGENICITY:

No information is available on any component of this product, which has levels greater than or equal to 0.1%, classified as probable, possible or confirmed human carcinogen by the International Agency for Research on Carcinogens.
 Mutagenicity: No specific or relevant data available for evaluation.
 Teratogenicity: No specific or relevant data available for evaluation.
 Tox. Repr.: No specific or relevant data are available for evaluation.

ANIMAL TOXICITY VALUES:

There is no information on the toxicity of the product, but estimates of acute toxicity are presented.
 ATE-LD50 oral (rat, calc.): 300 - 2000 mg/kg
 ATE-LD50 der (rabbit, calc.): > 2000 mg/kg
 ATE-LC50 inh. (rat, 4hs., calc.): > 5 mg/l
 Skin irr. (rabbit, estim.): corrosive
 Eye irr. (rabbit, estim.): corrosive
 Skin sens (Guinea pig, estim.): not sensitising
 Resp. sens (Guinea pig, estim.): not sensitizing
 STOT-SE: May cause effects on specific organs after exposure to the product. Affected organs: optic nerve, central nervous system.
 STOT-RE: May cause effects on organs through prolonged or repeated exposure. Affected organ: Kidney.
 Aspiration: There are no components of this product, present at a concentration greater than or equal to 1%, that classify as toxic by aspiration according to the SGA.

SECTION XII – ECOLOGICAL INFORMATION

ECOTOXICITY:

There is no information on the ecotoxicity of the product, but estimations of ecotoxicity estimates are presented.
 ATE-EC50 (O. mykiss, calc., 96 h): > 100 mg/l
 ATE-EC50 (D. magna, calc., 48 h): > 100 mg/l
 ATE-EC50 (P. subcapitata, calc., 72 h): 10 - 100 mg/l
 ATE-NOEC (D. rerio, calc., 14 d): > 1 mg/l
 ATE-NOEC (D. magna, calc., 14 d): > 1 mg/l

PERSISTENCE AND DEGRADABILITY:

BIODEGRADABILITY (estimated): No test data, but the product is expected to be biodegradable.
 PNEC (water): N/D
 PNEC (sea water): N/D
 PNEC-STP: N/D

BIOACCUMULATIVE POTENTIAL:

Log Ko/w (OCDE 107 o 117): N/D
 BIOCONCENTRATION FACTOR - BCF (OCDE 305): N/D

MOBILITY IN SOIL:

HENRY CONSTANT (20°C): N/D
 LogKoc: N/D

OTHER ADVERSE EFFECTS: Does not contain organic halogens nor metals.


SECTION XIII – DISPOSAL CONSIDERATIONS

Both the excess product and empty containers should be disposed of in accordance with current legislation on Environmental Protection and in particular Hazardous Waste Laws. You must classify the waste and dispose of it by an authorized company. Both the excess product and empty containers should be disposed of in accordance with current legislation regarding the Protection of Environment and particularly of hazardous waste. It should classify the waste and dispose of it by an authorized company.


Empty containers may contain residue and thus be dangerous. Do not attempt to refill or clean containers without possessing the appropriate instructions.

SECTION XIV – TRANSPORT INFORMATION


TRANSPORT BY LAND

| | | |
|--------------------------------|---|---|
| Proper Shipping Name: | CORROSIVE LIQUID, N.O.S.(contains ethanolamine) |  |
| UN/ID Number: | 1760 | |
| Hazard class: | 8 | |
| Packing group: | II | |
| Hazard identification number: | 80 | |
| Excepted and limited quantity: | 1L / E2 | |

AIR TRANSPORT (ICAO/IATA)

| | | |
|-------------------------------------|---|---|
| Proper Shipping Name: | CORROSIVE LIQUID, N.O.S.(contains ethanolamine) |  |
| UN/ID Number: | 1760 | |
| Hazard class: | 8 | |
| Packing group: | II | |
| PAX and Cargo Packing instructions: | Y840, 0,5L / 851, 1L | |
| Cargo Packing instructions: | 855, 30L | |
| ERC: | 8L | |

SEA TRANSPORT (IMO)

| | | |
|-----------------------|--|---|
| Proper Shipping Name: | CORROSIVE LIQUID, N.O.S.(contains ethanolamine) |  |
| UN/ID N°: | 1760 | |
| Hazard class: | 8 | |
| Packing group: | II | |
| EMS: | F-A; S-B | |
| Marine pollutant: | NO | |
| Proper Shipping Name: | UN1760; CORROSIVE LIQUID, N.O.S.(contains ethanolamine); Class 8; PG II; Flash point 85°C (185°F) c.c. | |

SECTION XV – REGULATORY INFORMATION

Regulations and safety legislation specific for the substance or mixture:
Not dangerous for the ozone layer (1005/2009/CE).

Volatile organic compounds (VOC's) (1999/13/EC): N/D

Globally Harmonized System of Classification and Labelling of Chemicals, fifth revised edition, 2013 (GHS 2013 - 'ST / SG / AC 10/30 / Rev.5'). The fifth edition is taken into consideration because it is the one valid for Argentina according to Resolution 801/2015 of the SRT. In any case, the information is contrasted with Revision 6 ('ST / SG / AC 10/30 / Rev.6') and clarification is made if required.

Agreement on Transport of Dangerous Products within the MERCOSUR, MERCOSUR\CMC\DEC N° 2/94.

European Agreement on the International Carriage of Dangerous Goods by Road (ADR 2017) and amendments.

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2017) and amendments.

International Maritime Dangerous Goods Code (IMDG 2016 - Amendment 38-16), International Maritime Organization (IMO).

IBC Code 2016, IMO, IMO Resolution MSC.369 (93).

Regulations of the International Air Transport Association (IATA 58 ed., 2017) on the transport of dangerous goods by air.

SECTION XVI – OTHER INFORMATION

N/A: not applicable.

N/D: no data available.

CAS: Chemical Abstracts Service

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists.

TLV: Threshold Limit Value

TWA: Time Weighted Average

STEL: Short Term Exposure

REL: Recommended Exposure Limit.

PEL: Permissible Exposure Limit.

INSHT: National Institute for Safety and Health at Work.

ATE: Acute toxicity estimate.

LD50: Lethal Dose.

LC50: Lethal Concentration.

EC50: Average Effective Concentration.

IC50: Inhibitory Concentration Medium.

|: Changes from the previous revision.

Key literature references and sources for data

International Agency for Research on Cancer (IARC), carcinogen classification.

European Regulation 1272/2008, Classification, labeling and packing (CLP)

European Agreement on the International Carriage of Dangerous Goods by Road (ADR 2017) and amendments.

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2017) and amendments.

International Maritime Dangerous Goods Code (IMDG 2016 - Amendment 38-16), International Maritime Organization (IMO).

IBC Code 2016, IMO, Resolution MSC.369 (93).

Regulations of the International Air Transport Association (IATA 58 ed., 2017) concerning the transport of dangerous goods by air.

The classification was performed based on chemical analogues and product information.

SECTION 2: classification by analogy with other products, and based on product data.

SECTION 9: product data.

SECTION 11 and 12: analogy with other products.

Acute toxicity: calculation method for estimating acute toxicity.

| | |
|----------------------|----------|
| HEALTH | 2 |
| FLAMMABILITY | 2 |
| REACTIVITY | 0 |
| TARGET ORGANS | 1 |



Obligatory safety goggles.



Obligatory gloves.



Obligatory overall.

The information and recommendations given here are to our knowledge correct, and is the responsibility of each user to determine whether they are accurate, appropriate and complete for its particular use. The conditions and / or methods of handling, storage, use and disposal of the product are beyond our control and perhaps of our knowledge. For these and other reasons our company is not liable for loss, damage or caused or related to the handling, storage, use or disposal of this product costs. Our company is not responsible for any damage or incident, direct or indirect, of any nature that may result from the use of this information. Any information not contained in this SDS must be understood as undetermined or unknown.

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Replaces: -

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