ESCOTELL	**SAFETY DATA SHEET — BIOCIDE AD-38**	MSDS: 038 Revised: APRIL 2019

Section 1. Identification

Product identifier:	BIOCIDE AD-38
Use of the substance or mixture:	Combination of a halogenated phenolic compound, the sodium salt of o-phenyl phenol and a nitrogenated compound to prevent deterioration of concrete admixtures and various aqueous formulations.
Supplier details:	ENERGÍAS SUSTENTABLES COTELL, S.A. de C.V. Boulevard Lomas de la Hacienda 39 Lomas de la Hacienda, Atizapán de Zaragoza Estado de México. 52925
Emergency telephone:	SETIQ 01800 00214 00

Section 2. Hazard Identification

Classification of the substance or mixture:	
Signal word:	WARNING / CAUTION
CORROSION:	H318 Causes serious eye damage.
ENVIRONMENT:	H402 Harmful to aquatic organisms (Acute aquatic).
Acute oral toxicity – 4:	H302 Harmful if swallowed.
Skin sensitization – 1:	H315 May cause an allergic skin reaction.
Chronic aquatic toxicity – 3:	H411 Toxic to aquatic life with long lasting effects.
Hazard indications:	May cause severe skin burns and eye damage. Moderately irritating to the respiratory tract. Toxic to aquatic organisms.
Precautions for handling:	Wear neoprene or PVC protective gloves. Wear safety glasses or face shield. Wear protective clothing (long-sleeve coverall and rubber boots). Avoid release to the environment. Wash hands thoroughly after handling.
Product definition:	Aqueous mixture

Section 3. Composition and Information on Ingredients

Chemical	CAS #	% Weight	OSHA PEL	ACGIH TLV
Halogenated Phenolic Compound (Potassium Salt)	88-06-2	>75.0	To be established	To be established
o-Phenyl Phenol (sodium salt)	132-27-4	<9.0		
Nitrogenated Compound	78491-02-8	<13.0		
Inerts		<3.0		

Section 4. First Aid Measures

Eye contact:	Seek immediate medical attention. Rinse eyes with plenty of water, occasionally lifting upper and lower eyelids. Check if victim wears contact lenses and remove them if so. Continue rinsing for at least fifteen minutes.
Inhalation:	Seek immediate medical attention. Move patient to fresh air. Do not apply mouth-to-mouth resuscitation. If breathing has stopped, apply artificial respiration; if breathing with difficulty, administer oxygen. Loosen any tight clothing (collar, tie, belt). Ensure good air circulation.
Skin contact:	Wash skin with soap and water for 15 minutes while removing contaminated clothing and footwear. Seek medical assistance.
Ingestion:	Rinse mouth with plenty of water. Do not give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention.
Most important symptoms and effects:	
Eye contact:	Severely irritating. Causes serious eye damage.
Inhalation:	May irritate the respiratory tract.
Skin (contact and absorption):	Causes skin irritation, redness, burns.
Accidental ingestion:	May cause damage to the digestive tract including abdominal pain, nausea, vomiting and diarrhea. May cause burns to the mouth, throat and stomach.
Signs/symptoms of overexposure:	Prolonged or repeated contact may cause skin sensitization.

Section 5. Fire-Fighting Measures

Suitable extinguishing media:	Water mist, dry chemical powder, carbon dioxide and sand.
Personal protective equipment for fire-fighting:	Long-sleeve coverall, rubber boots, rubber gloves, safety glasses, toxic gas respirator, full body wash.
Special procedures and precautions for fire-fighting:	If involved in a fire, use MSHA/NIOSH-approved positive-pressure self-contained breathing apparatus and full protective clothing.
Hazardous combustion products:	Hydrochloric acid, carbon monoxide, carbon dioxide and chlorine vapors.

Section 6. Accidental Release Measures

Spill/leak indications:	Do not touch or walk through spilled material. Use appropriate personal protective equipment. Avoid spread of spilled material and contact with soil or water sources. Clean up spills immediately. Contain and recover liquid where possible; collect in an appropriate container or absorb with sand and pick up mechanically. Dispose of in accordance with federal, state and local regulations.

Section 7. Handling and Storage

Handling and storage precautions:	Store in tightly closed containers. Store in dry, cool, well-ventilated areas, away from incompatible materials. Keep separate from food and seeds. Eating, drinking or smoking must be prohibited in areas where this product is handled, stored or processed. Workers should wash hands and face before eating, drinking or smoking. Label containers clearly. Handle using best industrial hygiene practices; use forced ventilation if necessary. Install eyewash station and emergency shower near the work area.
Eye/face protection:	Safety glasses.

Body and skin protection:	Chemical-resistant protective clothing. Long-sleeve 100% cotton coverall. Type of body protection should be chosen according to the task.
Respiratory protection:	Use a full-face respirator with organic vapor cartridges and particulate pre-filter.
Hand protection:	Handle with chemical-resistant rubber gloves (e.g. rubber, latex, nitrile, PVC). Wash and dry hands thoroughly after handling.

Section 8. Exposure Controls / Personal Protection

(See Section 7 for detailed PPE requirements)	

Section 9. Physical and Chemical Properties

Physical state:	Semi-fluid reddish-brown liquid
Density (25 °C):	1.35 – 1.45
Odor:	Characteristic
Boiling temperature:	246 °C @ 760 mmHg
Melting point:	30 – 40 °C
Vapor pressure (mm Hg):	1 mmHg @ 77 °C
Water solubility:	Soluble
Flash point:	99 °C
Vapor density (air = 1):	N/A
Evaporation rate (butyl acetate = 1):	N/A

Section 10. Stability and Reactivity

Chemical stability:	Stable
Conditions to avoid:	Sensitive to excess heat and flames. Avoid strongly oxidizing and reducing agents.
Incompatibility (substances to avoid):	Avoid strongly oxidizing agents, hydrochloric acid and anhydrous acids.
Hazardous decomposition products:	Decomposes upon heating producing hydrochloric acid, carbon monoxide, carbon dioxide and chlorine vapors.
Spontaneous polymerization:	Does not occur.

Section 11. Toxicological Information

o-Phenyl phenol (sodium salt) — by its sodium hydroxide component:	
Carcinogenicity (EPA):	Tested per EPA Final Guideline for Carcinogen Risk; classified as "Not Carcinogenic to Humans" at doses of 200 mg/kg/day. IARC — Evidence of carcinogenicity in animals.
Acute oral (LD50):	2,020 mg/Kg in rats.
Skin irritation:	Corrosive in rabbits (4-hour exposure).
Inhalation (LC50):	> 1,331 mg/m³, aerosol, 1 hour in rats.

Halogenated Phenolic Compound:	
Carcinogenicity (NTP):	Tests in dogs, rats and mice concluded the product is NOT carcinogenic. Not listed as carcinogenic by OSHA, IARC or NTP.
Acute oral (LD50):	820 mg/Kg in rats.
Inhalation effects:	Depend on concentration and duration of exposure. May cause damage to: respiratory tract, skin and eyes.
2-Hydroxyethylamine:	N/A

Section 12. Ecological Information

For o-Phenyl Phenol (sodium salt):	
Biodegradation:	> 80% — Readily biodegradable.
Bioaccumulation:	BCF: 22 — Not bioaccumulative.
Acute toxicity — Brachydanio rerio (LC50):	Approx. 2.3 mg/l in 96 hrs.
Acute toxicity — Leuciscus idus (LC50):	20 mg/l in 96 hrs.
Acute algal toxicity (EC50) — Green Alga (Desmodesmus subspicatus):	0.85 mg/l in 72 hrs.
Microorganism toxicity (ECO):	1,000 mg/l (Pseudomonas fluorescens)
Aquatic plant toxicity:	Lethal at pH 8.5
Aquatic invertebrates (LC100) — Daphnia magna:	156 mg/L (pH 9.1–9.35)
For Halogenated Compound (potassium salt):	
Rainbow trout (LC50):	0.75 mg/l in 96 hours.
Cypriodon variegatus Lacepede (LC50):	4.1 mg/l in 96 hours.
Algae (EC50):	0.25 mg/l in 96 hours.
Lepomis macrochirus (LC50):	1.5 mg/l in 96 hours.
Aquatic invertebrates (EC50) — Water flea:	4.1 mg/l in 48 hours.

Section 13. Disposal Considerations

Waste disposal method:	Residues may be disposed of in accordance with federal, state or local environmental control laws of the place where the product is used.
Empty containers:	Reconditioning or disposal of empty containers shall be carried out in accordance with government regulations. Do not reuse empty containers.

Section 14. Transport Information

DOT — Land transport information:	Class 8. Corrosive label.
IMO/IMDG — Shipping information:	Corrosive, organic. Class 8.
ICAO/IATA:	Corrosive. Class 8.

Section 15. Regulatory Information

US Federal Regulations:	
OSHA:	Hazcom Standard Rating: Hazardous.
TSCA:	Not listed.
SARA:	Section 311/312 — Acute health hazard.
US EPA (EPCRA SARA Title III, Section 302 — Extremely Hazardous Substance, 40 CFR 335, Appendix A):	NONE
US EPA (EPCRA SARA Title III Toxic Chemical, 40 CFR 372.65 — Supplier Notification Required):	Sodium o-phenylphenate.

Section 16. Other Information

References and sources used:	European Chemicals Agency. Institute for Occupational Safety and Health of the German Social Accident Insurance. Danish (Q) Database — Division of Diet, Disease Prevention and Toxicology, National Food Institute. Montreal Protocol on Substances that Deplete the Ozone Layer, UNEP. Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
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