

**SAFETY DATA SHEET**

# SAN-G WALL

**Section 1: Product Identification**

Product Trade Name:	SAN-G WALL
Generic Name by SUCAMEC:	NON-SENSITIZED BULK EMULSION OR HYDROGEL
Recommended Use and Restrictions:	<p>SAN-G WALL is a variable low-density blasting agent produced from the SAN-G APU matrix emulsion mixture, produced with a special oil and expanded polystyrene beads made in the factory truck on site before loading it into the drill holes. It is part of the bulk family of Famesa Explosivos S.A.C., which includes products designed for the application of blasting in dry, humid and flooded holes, as well as the delivery of the highest range of densities for bulk explosives.</p> <p>The handling temperature range of the SAN-G WALL is from 0°C to 40°C.</p>

**Provider Information**

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**Section 2: Hazards Identification**
**Substance or Mixture GHS Classification**

Ammonium nitrate emulsion  
 UN Number 3375  
 Class or Division 5.1

Description		Hazard Identification
Physical Hazards	Oxidizing liquid, Cat. 2	H272 May intensify fire: OXIDISER
Health Hazards	Acute Ingestion Toxicity, Cat. 4	H302 Toxic if swallowed.
	Skin irritation, Cat. 3	H316 Causes mild skin irritation.
	Eye irritation, Cat. 2B	H320 Causes eye irritation.
Environmental Risks	Specific target organ toxicity after repeated exposures, Cat. 2	H373 May cause damage to organs through prolonged or repeated exposure.
	No information is available.	No information is available.

**Signal Word:** Danger, Caution.

**GHS Label Element**

**Cautionary Advice**
**In terms of prevention**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Do not smoke.
P220	Keep away from clothing and other combustible materials.
P260	Do not breathe vapors.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear gloves, protective clothing, safety glasses, ear protection.

**In the event of interference**

P319	Seek medical advice if the person is unwell.
P330	Rinse mouth.
P301 + P317	IF SWALLOWED: Get medical attention.
P332 + P317	In case of skin irritation seek medical advice.
P337 + P317	If eye irritation persists, get medical advice.
P370 + P378	In case of fire, use appropriate extinguishing media.
P305 + P351 + P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

**For storage**

P401	Store in accordance with local and manufacturer's regulations.
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**For disposal**

P501	Dispose of contents in accordance with local regulations.
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**Other hazards**

No information is available.

**Section 3: Composition / Information of components**

Chemical Identity	Common Name	CAS Number	Concentration
Ammonium Nitrate	Not Applicable	6484-52-2	40.0– 90.0%
Sodium Nitrate	Not Applicable	7631-99-4	0.0–3.0%
Urea	Not Applicable	57-13-6	0.0 – 3.0%
Polystyrene beads	Not Applicable	9003-53-6	0.15 – 1.50%
Thiourea	Not Applicable	62-56-6	0.0 – 3.0%

**Section 4: First Aid Measures**

**Inhalation:** If combustion gases are inhaled, move the injured person to a fresh and ventilated place. If breathing is difficult, give oxygen. Get medical attention.

**Skin Contact:** Wash immediately with soap and water. If irritation, redness or burning sensation exists and persists, seek medical attention.

**Eye Contact:** In case the product for any reason comes into contact with the eyes, wash immediately with plenty of water for at least 15 minutes keeping the eyelids raised. If irritation occurs, repeat rinsing and seek medical attention.

**Ingestion:** In the event that the product is swallowed, do not induce vomiting, rinse mouth and give water to drink. Get medical attention.

**Most important symptoms / effects:** Abdominal pain, nausea, vomiting, motor weakness, anemia.

**Most acute symptoms / effects:** Hypertension, abdominal pain, nausea, vomiting.

**Delayed symptoms / effects:** Abdominal cramps, anemia, anxiety, insomnia, motor weakness. Seek medical attention if they occur.

**Immediate indications and special treatment:** Systematic treatment.

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## Section 5: Fire-fighting measures

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**Suitable extinguishing media:** Do not fight fire. Evacuate area immediately, prevent access, do not breathe fumes from fire. If the incident has not been reported as a fire, use water as extinguishing media.

**Specific hazards of the chemical:** If combustion exists alone or in conjunction with other materials, toxic fumes may be produced, avoid inhalation of fumes generated by fire.

**Special protective equipment and special precautions for fire-fighting equipment:** Evacuate area in all directions 1.6 km or more. Allow fire to burn out. Do not allow personnel to pass. Clear area.

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## Section 6: Measures to be taken in case of accidental release

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**Personal Precautions:** Only trained and authorized personnel must take actions in emergency situations.

**Personal Protective Equipment:** Gloves, safety glasses with side protection, work clothes, safety shoes.

**Emergency Procedures:**

- Restrict access to the spill area.
- Remove sources of heat and ignition.
- Do not allow access to unauthorized personnel.
- Minimize the number of people in the risk area.
- All equipment used in handling the spill should be grounded.
- Use non-sparking equipment and tools when handling the material.
- Do not touch or walk over spilled material.

**Environmental precautions:** Take precautions to prevent contamination of streams and drains.

**Methods and materials for isolation and cleaning up:** Spilled material should be placed in properly identified containers, do not use metal objects or any tools that may produce sparks. Place the product in marked containers. Decontaminate the spill area. Dispose of the material under supervision of qualified personnel.

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## Section 7: Handling and Storage

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**Precautions for Safe Handling**

**Operational and Technical Measures to avoid exposure:** This product must be handled by qualified and authorized personnel in the use of this product. The SAN-G WALL has been designed for blasting applications with dry, water and dewatered holes in soils ranging from 0°C to 40°C.

**Other precautions:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again before leaving work.

**Storage Conditions**

**Conditions for Safe Storage:** It will be stored only with compatible products. The place or silo destined for storage must comply with all the requirements established by the regulations in force. It must be stored at temperatures between 0°C and 40°C, located in safe, well ventilated, dry areas, protected from rain and heat.

**Incompatible Substances and Mixtures:** Do not store with corrosive, volatile, combustible, acid and base chemical substances, or metallic elements.

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## Section 8: Exposure control / personal protection

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**Control parameters**

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No value is recorded for this specific material; however, exposure limits are described, according to international standards, for particulate matter and decomposition products:

Product name: AMMONIUM NITRATE, SODIUM NITRATE

Dusts not otherwise classified: 8hr TWA = 10 mg/m<sup>3</sup>

Nitrogen dioxide: 8hr TWA = 5.6 mg/m<sup>3</sup> (3 ppm), 15 min STEL=9.4 mg/m<sup>3</sup> (5 ppm)

Mineral oils: 8hr TWA = 5 mg/m<sup>3</sup>

### Appropriate engineering controls

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Apply engineering measures to comply with occupational exposure limits. Eye drop stations. Ventilation system.

If safe exposure levels could be exceeded in the handling and application of this material, engineering controls such as local exhaust ventilation should be considered. If safe exposure levels are achieved, engineering controls are not required, following a detailed and documented risk assessment using personnel.

### Personal Protective Equipment (PPE)

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**Eye Protection:** Safety glasses fitted to the contour of the face that meet ANSI/ISEA Z87.1-2015 requirement.

**Skin and Body Protection:** Safety clothing and footwear should be appropriate according to current regulations, e.g. cotton uniform to avoid static charge build-up.

**Respiratory Protection:** Wear protection that complies with OSHA 29 CFR. 1910.134 and ANSI Z88.2 or European Standard EN 149.

**Thermal Hazards:** Not applicable.

**Hand Protection:** The use of protective gloves made of impermeable material with chemical resistance is recommended. They may be made of nitrile or better, complying with the UNE-EN-420:2004 standard.

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## Section 9: Physical and chemical properties

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**Physical State:** Pasty Mass

**Color:** Light brown.

**Odor:** Odorless.

**Melting Point / Freezing Point:** Not applicable.

**Boiling point or initial boiling point and boiling range:** No information is available.

**Flammability:** Not applicable.

**Lower and upper explosion limit / flammability limit:** No information is available.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Decomposition Temperature:** No information is available.

**pH:** Not applicable.

**Kinematic Viscosity:** No information is available.

**Solubility:** Insoluble in water.

**Partition coefficient n-octanol/water (logarithmic value):** No information is available.

**Vapor Pressure:** No information is available.

**Density (g/cm<sup>3</sup>):** 1.32 ± 3%

**Vapor relative density (air=1):** No information is available.

**Particle Characteristics:** Not applicable.

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## Section 10: Stability and Reactivity

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**Reactivity:** May cause or intensify fire. May accelerate the burning of other combustible materials.

**Chemical Stability:** Stable under normal conditions of recommended temperature and use. May combust when subjected to direct fire.

**Possibility of Hazardous Reactions:** None, provided that recommended handling, transport, storage and usage requirements are met.

**Conditions to Avoid:** Heat. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with other chemicals. Avoid contact with flammable substances.

**Incompatible Materials:** Incompatible with strong acids and bases, fuels, reducing agents.

**Hazardous Decomposition Products:** Ammonia (NH<sub>3</sub>), Oxides of nitrogen (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>). When heated to decomposition (unconfined), ammonium nitrate produces nitrous oxide, white ammonium nitrate fumes and water. When mixed with strong acids and occasionally during blasting, it produces an irritating toxic brown gas, mainly nitrogen dioxide. When molten it can decompose violently.

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## Section 11: Toxicological Information

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**Acute Toxicity (DL 50, CL 50):** No information is available.

**Corrosion / Irritation:** None under normal handling conditions. In some cases, prolonged contact with the mass may cause mild skin irritation.

**Serious Eye Damage/Eye Irritation:** May cause eye irritation.

**Respiratory or skin sensitization:** No information is available.

**Germ Cell Mutagenicity:** No information is available.

**Carcinogenicity:** Petroleum: IARC - 3 (Not classified as carcinogenic to humans). The remaining components of this product are not listed below: U.S., EPA, U.S., NTP, OSHA, GERMAN MAK, IARC and ACGIH, therefore, are not considered or suspected carcinogens by the above-mentioned agencies.

**Reproductive Toxicity:** No information is available.

**Specific Target Organ Systemic Toxicity – Single Exposure:** No information is available.

**Specific Target Organ Systemic Toxicity – Repeated Exposures:** One of its components can damage certain organs after prolonged or repeated exposure.

**Aspiration Hazard:** No information is available.

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## Section 12: Ecotoxicological Information

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**Ecotoxicity:** It does not present ecological problems if the waste is disposed of properly.

**Persistence and Degradability:** Degradation of ammonium nitrate and sodium nitrate is expected to occur under aerobic and normal environmental conditions.

**Bioaccumulative Potential:** No information is available.

**Soil Mobility:** No information is available.

**Other adverse effects:** Avoid spillage on soils, plants and any source of water and drains.

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## Section 13: Information regarding the disposal of products

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**Recommended and approved methods for safe disposal:** Collect material and dissolve in container with water and de-emulsifying agent, dispose as industrial waste.

**Recommended and approved methods for disposal of contaminated containers/packaging:** Local regulations should be complied with. If product becomes waste should review disposal requirements with a specialist of applicable Environmental law before disposing of any explosive material.

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## Section 14: Transport Information

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Mode of transport applied

Road

Sea

Air

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National and international regulations	SUCAMEC / Law 28256	IMO / IMDG	IATA / DGR
UN Number	3375	3375	3375
Proper UN Shipping Name	Ammonium nitrate emulsion	Ammonium nitrate emulsion	Forbidden
Transport classification	5.1	5.1	Forbidden
Label			Forbidden
Packaging group	II	II	Forbidden
Environmental hazards	No information is available	No information is available	Not Applicable
Bulk transport according with IMO instruments	Not Applicable	No information is available	Not Applicable

## Section 15: Regulatory Information

### National Regulations

- Regulation on the Control of Explosives for Civil Use – Peru (SUCAMEC)
- Law No. 28256: “Law regulating the Land Transportation of Hazardous Materials and Hazardous Wastes”.

### International Regulations

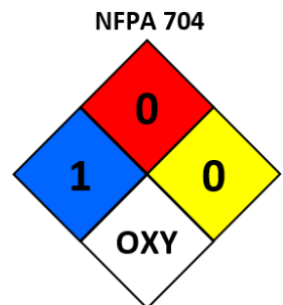
- Globally Harmonized System of Classification and Labeling of Chemicals (GHS), United Nations, 8th version.
- International Maritime Dangerous Goods Code (IMDG Code), IMO, 2018 edition.
- Dangerous Goods Regulations (DGR), IATA, Issue 62.

## Section 16: Other Information

This safety data sheet has been prepared by professionals from the areas of Industrial Safety, Environment, Quality Control, Research and Development and the Occupational Physician of Famesa Explosivos.

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### Abbreviations and Acronyms

DL50 – Lethal dose for 50% of the population tested.

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CL50 – Lethal concentration for 50% of the population tested.

UN - United Nations Organization.

TWA - Time Weighted Average Concentration.

CAS - Chemical Abstracts Service.

OSHA – Occupational Safety and Health Administration.

ACGIH – American Conference of governmental Industrial Hygienists.

PEL – Permissible Exposure Limits.

#### **Disclaimer of Liability**

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Famesa Explosivos S.A.C., hereinafter Famesa, has prepared this safety data sheet based on our extensive knowledge at the date of issue, on chemical health hazards, material safety and general guidance on how to handle the material safely in the workplace. Since Famesa cannot anticipate or control the conditions of use of the product, each user must, prior to handling, evaluate and control the risks of the product.

If you need clarification and/or further information, please contact FAMESA EXPLOSIVOS S.A.C. through our telephone and/or mail indicated in section 1 of this document.