

### Safety Data Sheet

According to U.S.A. Federal Hazcom 2012

## 1. Identification

### 1.1. Product identifier

Product name **ANTISLIP G**

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Anti-slip treatment for ceramic and water-based stoneware**

Identified Uses	Industrial	Professional	Consumer
<b>ADHESIVE SYSTEM/TREATMENT FOR STONE SECTOR</b>	-	✓	-

### 1.3. Details of the supplier of the safety data sheet

Name **Tenax Spa**  
Full address **Via I Maggio, 226**  
District and Country **37020 Volargne (VR)**  
**Italy**  
Tel. **+39 045 6887593**  
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e-mail address of the competent person responsible for the Safety Data Sheet **msds@tenax.it**

Product distribution by: **Tenax Usa**  
**7606 Whitehall Executive Center Drive Suite 400, 28273 Charlotte NC, US**  
Tel. **001 7045831173** - Fax **001 7045833166**  
**info@tenaxusa.com**

### 1.4. Emergency telephone number

For urgent inquiries refer to **Infotrac**  
**US and Canada: 1-800-535-5053**  
**Int'l: 1-352-323-3500**  
**info@infotrac.net**

## 2. Hazards identification

### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Eye irritation, category 2  
Skin irritation, category 2

Causes serious eye irritation.  
Causes skin irritation.

Hazard pictograms:



Signal words: **Warning**

Hazard statements:

**H319** Causes serious eye irritation.  
**H315** Causes skin irritation.

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### 2. Hazards identification ... / >>

Precautionary statements:

Prevention:

**P280** Wear protective gloves / eye protection / face protection.  
**P264** Wash the hands thoroughly after handling.

Response:

**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. 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.  
**P302+P352** IF ON SKIN: wash with plenty of water / . . .  
**P362+P364** Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

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#### 2.2. Other hazards

Information not available

### 3. Composition/information on ingredients

#### 3.2. Mixtures

Contains:

Identification	Conc. %	Classification:
<b>AMMONIUM BIFLUORIDE</b>		
CAS	1341-49-7 2.9	<b>Acute toxicity, category 3 H301, Skin corrosion, category 1B H314, Serious eye damage, category 1 H318</b>
EC	215-676-4	
INDEX	009-009-00-4	

The full wording of hazard (H) phrases is given in section 16 of the sheet.

### 4. First-aid measures

#### 4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

#### 4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Information not available

### 5. Fire-fighting measures

#### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

#### 5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

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### 5. Fire-fighting measures ... / >>

#### 5.3. Advice for firefighters

##### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

##### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

### 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

#### 6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

#### 6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

### 7. Handling and storage

#### 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s)

Information not available

### 8. Exposure controls/personal protection

#### 8.1. Control parameters

Regulatory References:

USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

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### 8. Exposure controls/personal protection ... / >>

#### AMMONIUM BIFLUORIDE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	2.5			
OEL	EU	2.5			
OSHA	USA	2.5			
OSHA	USA	2.5			
CAL/OSHA	USA	2.5			
CAL/OSHA	USA	2.5			

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

#### HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.

#### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

### 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	yellow	
Odour	pungent	
Odour threshold	Not available	
pH	Not available	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Boiling range	Not available	
Flash point	> 93 °C	(199,4 °F)
Evaporation Rate	Not available	
Flammability of solids and gases	Not available	
Lower inflammability limit	Not available	
Upper inflammability limit	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Vapour pressure	17.5 mmHg	
Vapour density	Not available	
Relative density	1 g/ml	
Solubility	soluble in water	
Partition coefficient: n-octanol/water	Not available	
Auto-ignition temperature	Not available	
Decomposition temperature	Not available	

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### 9. Physical and chemical properties ... / >>

Viscosity Not available  
Explosive properties Not available  
Oxidising properties Not available

#### 9.2. Other information

Information not available

### 10. Stability and reactivity

#### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

##### AMMONIUM BIFLUORIDE

Decomposes at temperatures above 230°C/446°F.

#### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

#### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

##### AMMONIUM BIFLUORIDE

Risk of explosion on contact with: chlorine trifluoride, bromine trifluoride. May react dangerously with: acids.

#### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

#### 10.5. Incompatible materials

Information not available

#### 10.6. Hazardous decomposition products

##### AMMONIUM BIFLUORIDE

May develop: fluorine, hydrogen fluoride, ammonia, nitrogen gas.

### 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

#### 11.1. Information on toxicological effects

##### Metabolism, toxicokinetics, mechanism of action and other information

Information not available

##### Information on likely routes of exposure

Information not available

##### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

##### Interactive effects

Information not available

##### ACUTE TOXICITY

AMMONIUM BIFLUORIDE  
LD50 (Oral)

130 mg/kg Rat

##### SKIN CORROSION / IRRITATION

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### 11. Toxicological information ... / >>

Causes skin irritation

#### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

#### RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:

1341-49-7 AMMONIUM BIFLUORIDE  
ACGIH:: A4

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

#### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

#### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

#### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

### 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

#### 12.1. Toxicity

Information not available

#### 12.2. Persistence and degradability

AMMONIUM BIFLUORIDE

Solubility in water > 10000 mg/l  
Degradability: information not available

#### 12.3. Bioaccumulative potential

AMMONIUM BIFLUORIDE

BCF 0.5

#### 12.4. Mobility in soil

Information not available

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### 12. Ecological information ... / >>

#### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

#### 12.6. Other adverse effects

Information not available

### 13. Disposal considerations

#### 13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

### 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

#### 14.1. UN number

Not applicable

#### 14.2. UN proper shipping name

Not applicable

#### 14.3. Transport hazard class(es)

Not applicable

#### 14.4. Packing group

Not applicable

#### 14.5. Environmental hazards

Not applicable

#### 14.6. Special precautions for user

Not applicable

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

### 15. Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

TSCA:

All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):

No component(s) listed.

Clean Air Act Section 602 Class I Substances:

No component(s) listed.

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### 15. Regulatory information ... / >>

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

Clean Water Act – Priority Pollutants:

No component(s) listed.

Clean Water Act – Toxic Pollutants:

No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

No component(s) listed.

EPA List of Lists:

313 Category Code:

No component(s) listed.

EPCRA 302 EHS TPQ:

No component(s) listed.

EPCRA 304 EHS RQ:

No component(s) listed.

CERCLA RQ:

1341-49-7 AMMONIUM BIFLUORIDE (Fluorides, Fluorides, inorganic)

EPCRA 313 TRI:

No component(s) listed.

RCRA Code:

No component(s) listed.

CAA 112 (r) RMP TQ:

No component(s) listed.

State Regulations

Massachusetts:

1341-49-7 AMMONIUM BIFLUORIDE (Fluorides, Fluorides, inorganic)

Minnesota:

No component(s) listed.

New Jersey:

1341-49-7 AMMONIUM BIFLUORIDE (Fluorides, Fluorides, inorganic)

New York:

1341-49-7 AMMONIUM BIFLUORIDE (Fluorides, Fluorides, inorganic)

Pennsylvania:

1341-49-7 AMMONIUM BIFLUORIDE (Fluorides, Fluorides, inorganic)

California:

1341-49-7 AMMONIUM BIFLUORIDE (Fluorides, Fluorides, inorganic)

Proposition 65:

This product does not contain any substances known to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None



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### 15. Regulatory information ... / >>

Candadian WHMIS  
Information not available

### 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>H301</b>	Toxic if swallowed.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.

#### LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

#### GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy
  
- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Communication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachusetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website

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- Pennsylvania, Hazardous Substance List, Chapter 323

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

#### CALCULATION METHODS FOR CLASSIFICATION

Product classification derives from criteria established by the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200), unless determined otherwise in Section 11 and 12. The data for evaluation of chemical-physical properties are reported in section 9.