



MATERIAL SAFETY DATA SHEET (MSDS)

According to Regulation (EC) No.
1907/2006

Revision Date	01
Date of Issue	30.09.2025
Version Number	001
Form No.	001.01 EN

OrganoPlantis AsitBalance

SOIL AMENDMENT - ORGANIC + MINERAL BASED LIQUID SOIL AMENDMENT
(pH INCREASER - ACIDITY NEUTRALIZER)

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/ UNDERTAKING

1.1. PRODUCT IDENTIFIER

Product trade name	OrganoPlantis AsitBalance
Product form	Soil Amendment - Organic + Mineral Based Liquid Soil Amendment (pH Increaser - Acidity Neutralizer)
Product Use	Highly alkaline (pH >13) organic + mineral based liquid soil amendment designed to raise soil pH and neutralize excessive acidity in agricultural soils. Improves nutrient availability, enhances soil fertility, and supports sustainable crop production.

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Field	Content
Identified Uses	Professional agricultural use as a soil amendment. Specifically formulated for acidic soils to increase soil pH, reduce excessive acidity, and improve nutrient uptake efficiency.
Uses Advised Against	Not intended for human or animal consumption. Not suitable for foliar application. Do not mix with physiologically acidic fertilizers or materials.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Field	Content
Company Name	Ecobigen Gübre Tarım Sanayi Tic.Ltd.Şti
Address	Alparslan Mah. Samsun 1. Sok. No:13, Bafra, Samsun, Türkiye
Phone	+90 362 544 21 02
Web Site	https://agrobigen.com.tr/
E-Mail	info@ agrobigen.com.tr

1.4. EMERGENCY PHONE NUMBER

Field	Content
Country	TURKIYE
Organisation/ Company	Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzıssıhha Merkezi Başkanlığı
Address	Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara
Emergency Call Center	114
Comment	Information is provided to the public and medical personnel on poisoning incidents via 114.

SECTION 2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

- According to Regulation (EC) No 1272/2008 (CLP):
- Skin Irritation, Category 2 - H315: Causes skin irritation
- Eye Irritation, Category 2 - H319: Causes serious eye irritation
- Corrosive to Metals, Category 1 - H290: May be corrosive to metals

2.2 LABEL ELEMENTS



HAZARD STATEMENTS (H)

- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H290 - May be corrosive to metals

PRECAUTIONARY STATEMENTS (P)

- P264 - Wash hands thoroughly after handling
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
- P337+P313 - If eye irritation persists: Get medical advice/attention
- P302+P352 - IF ON SKIN: Wash with plenty of water
- P501 - Dispose of contents/container in accordance with local/regional/national regulations

2.3 OTHER HAZARDS

This product does not contain any substances classified as PBT or vPvB (according to REACH criteria).

It may release irritating alkaline vapors (e.g., ammonia or silicate aerosols) if heated or sprayed improperly.

Corrosive to metals such as aluminum, zinc, and light alloys.

Store only in HDPE, acid/alkali-resistant plastic, or corrosion-proof stainless steel containers.

SECTION 3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

Not applicable - this product is a mixture.

3.2 MIXTURES

The product is a liquid organomineral pH regulator, designed to neutralize acidic soils by elevating pH through alkaline mineral and organic components.

Component	CAS Number	EC Number	Concentration (% w/v)	Classification (Reg. EC 1272/2008)
Organic Slurry / Post-Fermentation Sludge	—	—	>20%	Not classified

Potassium Silicate (K₂SiO₃)	1312-76-1	215-199-1	>5%	Skin Corr. 1B (H314), Eye Dam. 1 (H318)
Potassium Hydroxide (KOH)	1310-58-3	215-181-3	>7%	Acute Tox. 4 (H302), Skin Corr. 1A (H314)

Additional Information:

The organic slurry is derived from stabilized post-fermentation biomass, contributing to soil structure improvement and carbon input. The high pH (>13) is due to the presence of strong alkaline agents (KOH and K₂SiO₃), which also contribute to the product's metal corrosivity and skin/eye irritancy. Silicates aid in calcium/magnesium availability and improve plant resistance to abiotic stress. All components are water-soluble, aiding in field application via fertigation or direct soil drench.

SECTION 4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

Exposure Route	Recommended Action
General Advice	Immediately remove the exposed individual from the source of exposure. Ensure access to fresh air and decontamination facilities. Always seek medical attention if symptoms persist or if there is any doubt. Provide the safety data sheet to the attending physician.
Eye Contact	Rinse cautiously and thoroughly with clean lukewarm water for at least 15 minutes, holding eyelids open. Remove contact lenses if easily possible. Continue rinsing. Seek immediate medical attention.
Skin Contact	Remove contaminated clothing immediately. Wash affected area thoroughly with soap and water. Do not use neutralizing chemicals. If skin irritation, burns, or blistering develops, seek medical attention.
Inhalation	Move the person to fresh air. If breathing is difficult, administer oxygen if trained to do so. If symptoms such as coughing, throat irritation, or shortness of breath develop, obtain emergency medical assistance.
Ingestion	Do NOT induce vomiting. Rinse mouth thoroughly. If the person is conscious, give small sips of water. Do not administer anything orally to an unconscious or convulsing person. Seek urgent medical care.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eyes: Causes severe irritation, redness, stinging, tearing, and possible damage to the cornea with prolonged contact.
- Skin: May cause burning, redness, and irritation. Severe exposure can lead to chemical burns or blistering.

- Inhalation: Mist or vapors may irritate nasal passages, throat, and lungs, resulting in coughing, sore throat, or breathing difficulty.
- Ingestion: Can cause burning sensation, abdominal pain, nausea, and damage to mucous membranes in the mouth and throat.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- No specific antidote available - treatment is symptomatic and supportive.
- Eye exposure requires urgent medical evaluation due to risk of corneal injury.
- Ingestion and skin burns may require hospital treatment, including fluid replacement, pain management, and electrolyte monitoring.
- In cases of large-scale exposure, monitor renal function and acid-base balance due to high alkalinity.

SECTION 5. FIREFIGHTING MEASURES

Suitable Extinguishing Media	<p>Use water spray, alcohol-resistant foam, dry chemical powder, or carbon dioxide (CO₂).</p> <p>Select extinguishing media appropriate to the surrounding fire.</p> <p>Use low-pressure spray to minimize splashing or spreading of corrosive material.</p>
Unsuitable Extinguishing Media	<p>Do not use high-pressure water jets, as they may spread corrosive liquid and generate hazardous runoff.</p> <p>Avoid using excessive volumes of water if there is a risk of product runoff entering drains, surface waters, or soil.</p>
Special Hazards Arising from the Substance or Mixture	<p>The product contains alkaline and corrosive components that may:</p> <ul style="list-style-type: none"> • React with incompatible materials during fire. • Release toxic and irritating vapors. • Cause pressure build-up and rupture of sealed containers when heated. <p>Hazardous decomposition products may include:</p> <ul style="list-style-type: none"> • Potassium oxides (K₂O) • Silicon oxides • Ammonia (NH₃) • Carbon monoxide (CO) and carbon dioxide (CO₂) from organic matter combustion.
Advice for Firefighters	<p>Firefighters must wear:</p> <ul style="list-style-type: none"> • Full protective clothing, and • Self-contained breathing apparatus (SCBA) with positive pressure mode. <p>Avoid inhalation of thermal decomposition products.</p> <p>Use water spray to cool exposed containers, especially if sealed and heated.</p>

Prevent firefighting runoff from contaminating drains, groundwater, or natural waterways.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Ensure adequate ventilation in the spill area.
Avoid direct contact with skin, eyes, and clothing.
Evacuate personnel from the area if large spills or high vapor concentrations are present.
Eliminate ignition sources in the vicinity, especially for large spills, despite the product being non-flammable. Alkaline solutions in contact with certain materials may release flammable gases.
Recommended Personal Protective Equipment (PPE):

- Chemical-resistant gloves (e.g., nitrile, neoprene)
- Safety goggles or full face shield
- Long-sleeved chemical protective clothing
- Respiratory protection (e.g., half-mask respirator with alkaline vapor filter) if airborne concentrations exceed exposure limits

Environmental Precautions

Prevent release into drains, surface waters, or soil.
Avoid contamination of irrigation systems, sewage, or natural water bodies.
Spilled alkaline material may raise soil pH, disrupt soil microbial balance, and impact aquatic ecosystems.
In case of large release into waterways, notify environmental authorities immediately.

Methods and Material for Containment and Cleaning Up

Stop the source of leakage only if it is safe to do so.
For small spills:

- Absorb with dry inert material (e.g., sand, vermiculite, diatomaceous earth).
- Neutralize residues with dilute acetic acid or citric acid if appropriate.

For large spills:

- Construct containment berms using earth or booms.
- Collect spillage into acid-resistant containers and label properly for disposal.

Do not use high-pressure water jets, which may aerosolize the corrosive solution.
Rinse affected surfaces with plenty of water after cleanup.
Ensure proper ventilation during and after cleanup operations.

Reference to Other Sections

For PPE guidance, see Section 8.
For disposal procedures, see Section 13.

SECTION 7. HANDLING AND STORAGE**Precautions for Safe Handling**

Avoid direct contact with skin, eyes, and clothing.

Do not breathe vapors, mists, or aerosols. Avoid generating airborne droplets.

Ensure adequate ventilation in all handling areas.

Use only with appropriate PPE (see Section 8), including:

- Alkali-resistant gloves (e.g., nitrile or neoprene)
- Splash-proof safety goggles or face shield
- Protective long-sleeved clothing
- Respiratory protection if exposure limits are exceeded

Do not eat, drink, or smoke during handling.

Wash hands and exposed skin thoroughly after use.

Keep away from:

- Acids (due to risk of exothermic neutralization reactions)
- Aluminum, zinc, or other metals susceptible to corrosion by alkalis
- Incompatible materials such as ammonium salts, halogenated compounds

Conditions for Safe Storage, Including Any Incompatibilities

Store in original, tightly closed, alkali-resistant containers (e.g., HDPE).

Keep in a cool, dry, and well-ventilated area away from:

- Direct sunlight
- Freezing temperatures
- Sources of ignition or heat

Recommended storage temperature: 5°C to 25°C.

Do not store near:

- Acidic substances (to prevent hazardous reactions)
- Foodstuffs, animal feed, or drinking water supplies

Ensure storage area has:

- Spill containment, neutralizing agents (e.g., acetic acid, citric acid)
- Ready access to emergency showers and eye wash stations

Specific End Use(s)

Product is intended solely for agricultural use as a soil pH regulator on acidic soils.

Not for foliar use, human or animal consumption, or industrial chemical applications.

Any non-agricultural usage must be evaluated and approved by the manufacturer.

SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

There are no occupational exposure limits specifically established for this mixture as a whole. However, exposure limits for certain components are regulated under EU and national legislation:

Substance	CAS No.	OEL - TWA	Note
Potassium Hydroxide	1310-58-3	2 mg/m ³ (ceiling)	EU IOELV
Potassium Silicate	1312-76-1	Not established	Handle as irritant dust
Organic matter (slurry)	--	Not classified	Naturally derived, low hazard

Consult national regulations for additional applicable limits.

8.2. EXPOSURE CONTROLS

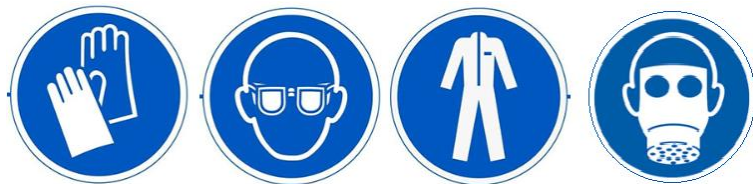
Appropriate Engineering Controls	Ensure adequate ventilation during handling, especially in enclosed spaces. Avoid mist formation during mixing or application. Provide local exhaust ventilation if airborne concentrations may exceed recommended limits. Install emergency eye wash fountains and safety showers in handling areas.
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8.3. PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE Type	Recommendation
Eye Protection	Safety goggles (EN 166) or full-face shield.
Skin Protection	Alkali-resistant gloves (e.g., nitrile, neoprene), long-sleeved protective clothing.
Respiratory	Not required under normal conditions. If ventilation is inadequate, use half-mask respirator with P2 filter (EN 143).
Foot Protection	Alkali-resistant boots in case of risk of splashes.

Hygiene Measures

- Do not eat, drink, or smoke while handling the product.
- Wash hands and face thoroughly after work and before breaks.
- Contaminated clothing should be removed immediately and washed before reuse.



SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brownish liquid
Odor	Mild organic odor
pH (20°C)	>13.0
Density	~1.10 g/cm ³
Boiling Point	>100°C (aqueous solution)
Freezing Point	~0°C
Solubility	Fully water-soluble
Viscosity	~50–200 cP
Oxidizing Properties	Not classified as oxidizing – does not contain nitrate or peroxide compounds
Corrosive Properties	Corrosive to skin, eyes, and certain metals (due to high alkalinity)

Note: The product is highly alkaline, not acidic. Proper PPE and corrosion-resistant equipment must be used when handling (see Section 8).

9.2 OTHER INFORMATION (NUTRIENT COMPOSITION)

Organic matter	10%
Water Soluble Potassium Oxide (K ₂ O)	4%

SECTION 10. STABILITY AND REACTIVITY

Property	Description
Reactivity	The product is strongly alkaline due to potassium hydroxide (KOH) and potassium silicate. It may react exothermically with acids, releasing heat and potentially harmful vapors.
Chemical Stability	Stable under normal storage and handling conditions (see Section 7). No decomposition if used as directed.
Possibility of Hazardous Reactions	May react violently with strong acids, generating heat and splattering. Contact with ammonium salts may release ammonia gas. No hazardous polymerization expected.
Conditions to Avoid	<ul style="list-style-type: none"> • Exposure to strong acids • Contact with incompatible metals (e.g., aluminum, zinc) • Extreme heat or freezing • Contamination with organic materials

Incompatible Materials	<ul style="list-style-type: none"> • Acids (e.g., sulfuric, nitric, citric) – cause neutralization reactions • Aluminum, zinc, and other light metals – risk of hydrogen gas release • Halogenated organics and ammonium compounds
Hazardous Decomposition Products	Under fire or extreme heat conditions: <ul style="list-style-type: none"> • Potassium oxides (K_2O) • Silicon oxides (SiO_x) • Irritating alkaline vapors • Hydrogen gas if reacting with certain metals (e.g., Zn, Al)

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Endpoint	Assessment
Acute Toxicity (Oral)	Estimated LD_{50} (rat) > 2000 mg/kg body weight. Product is not classified as acutely toxic according to CLP Regulation (EC) No 1272/2008.
Skin Corrosion/Irritation	Contains strong alkali components (e.g., potassium hydroxide, potassium silicate). May cause moderate to severe skin irritation or chemical burns depending on concentration and exposure duration. Classified as Skin Corr. 1A for concentrated product.
Serious Eye Damage/Irritation	Causes serious eye damage. Risk of permanent injury if not rinsed immediately and thoroughly. Classified as Eye Dam. 1 (H318).
Respiratory or Skin Sensitisation	Not expected to cause sensitisation. No known sensitising agents are present.
Germ Cell Mutagenicity	Not classified. No mutagenic potential identified for the listed ingredients.
Carcinogenicity	Not classified. None of the components are listed as carcinogens by IARC, NTP, OSHA, or under EU regulations.
Reproductive Toxicity	No known reproductive or developmental toxicants. Not classified.
STOT – Single Exposure	Not expected to cause specific target organ toxicity from a single exposure. Local irritation only.
STOT – Repeated Exposure	Repeated contact with skin or mucous membranes may cause irritation, dryness, or cracking. No systemic toxicity expected.
Aspiration Hazard	Not applicable – product is aqueous, non-volatile, and does not contain hydrocarbons.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity	The product is alkaline (pH >13) and contains strong bases such as potassium hydroxide and
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	<p>potassium silicate, which can pose risks to aquatic life at high concentrations:</p> <p>Potassium Hydroxide (KOH):</p> <ul style="list-style-type: none"> • LC₅₀ (96h, fish): ~80 mg/L • Highly alkaline and corrosive; may cause pH shock to aquatic organisms. <p>Potassium Silicate (K₂SiO₃):</p> <ul style="list-style-type: none"> • Low acute toxicity but may affect aquatic invertebrates due to alkalinity and silicate release. <p>Under normal agricultural application rates, the product is not expected to cause acute aquatic toxicity, but runoff into surface waters should be avoided due to the risk of pH elevation and chemical imbalances in aquatic ecosystems..</p>
Persistence and Degradability	<p>Organic matter in the formulation is readily biodegradable through microbial activity in soil. Mineral components (e.g., KOH, silicates) are non-biodegradable but chemically stable and react with soil minerals over time.</p>
Bioaccumulative Potential	<p>The product contains no substances with bioaccumulative potential.</p> <p>All components exist in ionic or polymeric silicate forms and are not expected to accumulate in organisms.</p>
Mobility in Soil	<p>The product is highly soluble in water and may be mobile in soil solution, especially in sandy or permeable soils.</p> <p>Risk of downward leaching should be managed with appropriate application techniques (e.g., incorporation into soil).</p>
Results of PBT and vPvB Assessment	<p>This mixture does not contain any substances classified as:</p> <p>PBT (Persistent, Bioaccumulative and Toxic), or vPvB (very Persistent and very Bioaccumulative) according to Annex XIII of Regulation (EC) No 1907/2006 (REACH).</p>
Other Adverse Effects	<p>Over-application may increase soil alkalinity, negatively affecting pH-sensitive crops and beneficial microorganisms.</p> <p>Avoid direct or indirect release into natural surface waters, as this may raise pH and harm aquatic biota.</p> <p>The product does not contribute to eutrophication, but its use should still follow best management practices.</p>

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

Product Waste Disposal	<p>Dispose of contents in accordance with all local, regional, and national regulations.</p> <p>Do not allow unused product to enter surface waters, drainage systems, or directly into soil.</p> <p>In cases where disposal via wastewater systems is considered, consult environmental authorities beforehand.</p> <p>Due to its high alkalinity (pH >13) and potential corrosivity, neutralization may be required before disposal.</p> <p>Recommended Waste Code (European Waste Catalogue):</p> <p>06 10 99* - Wastes not otherwise specified from the manufacture, formulation, supply, and use (MFSU) of agricultural chemicals.</p>
Packaging Disposal	<p>Empty containers should be triple-rinsed with clean water to remove all residues.</p> <p>Rinse water may be reused in the next application batch if appropriate.</p> <p>After rinsing, containers may be:</p> <p>Recycled, if permitted by local authorities and facilities, or</p> <p>Disposed of as non-hazardous plastic waste.</p> <p>Do not reuse empty containers for any other purpose.</p>

13.2 ADDITIONAL NOTES

- Do not incinerate sealed or pressurized containers due to explosion risk.
- Avoid uncontrolled dumping, burial, or open disposal.
- Any residual product and packaging should ideally be handled by licensed hazardous waste contractors.
- Always follow best agricultural practices to prevent accumulation of alkaline residues in soil or water systems.

SECTION 14. TRANSPORT INFORMATION

Parameter	Details
UN Number	1814
Proper Shipping Name	Potassium hydroxide solution
Transport Hazard Class	8 - Corrosive Substances
Packing Group	II - Medium Danger
Label(s)	
Marine Pollutant (IMDG)	No - not classified as a marine pollutant

Environmentally Hazardous	No - not classified as environmentally hazardous under ADR/IMDG/IATA
Transport in Bulk (MARPOL/IBC)	Not applicable - not intended for bulk transport by sea
Special Precautions	Avoid temperature extremes, sunlight, moisture ingress, and incompatible materials (e.g., strong acids, aluminum, zinc). Ensure tightly closed containers and upright transport.
Remarks	Transport must comply with ADR, IMDG, IATA guidelines. Do not transport near food or feed. Use only corrosion-resistant packaging (e.g., HDPE or acid-resistant plastic).

SECTION 15. REGULATORY INFORMATION

15.1. EU AND INTERNATIONAL REGULATIONS

CLP Regulation (EC) No 1272/2008	This product is classified and labeled in accordance with the CLP Regulation. Signal words, hazard statements (H), and precautionary statements (P) are applied based on the identified hazards associated primarily with alkaline corrosive components (e.g., potassium hydroxide, potassium silicate).
REACH Regulation (EC) No 1907/2006	The ingredients in this mixture are either: Pre-registered or fully registered under REACH, or Exempt from registration (e.g., naturally occurring substances such as organic slurry or silicate minerals of natural origin).
Transport Regulation	Classified as UN 1814 - Potassium hydroxide solution, subject to Class 8 - Corrosive Substances regulations (see Section 14).

15.2 LOCAL AND NATIONAL REGULATIONS

TR Türkiye	<ul style="list-style-type: none"> Complies with the "Organik ve Organomineral Gübreler Yönetmeliği" regulated by the Republic of Türkiye Ministry of Agriculture and Forestry. The product must be registered and approved before being placed on the market or applied in agricultural fields. Contains components subject to "Kimyasalların Envanteri ve Kontrolü Hakkında Yönetmelik" (SEA / CLP adaptation).
AZ Azerbaijan	<ul style="list-style-type: none"> Must comply with the fertilizer registration, importation, and safety regulations issued by the Ministry of Agriculture of the Republic of Azerbaijan. Governed by "Azərbaycan Respublikasının Gübrələrin Qeydiyyatı və Təhlükəsiz İstifadəsi Qaydaları". Subject to oversight by the State Phytosanitary Control Service for storage, transport, and agricultural use.

SECTION 16. OTHER INFORMATION

Prepared by	AGROBİGEN R&D Department
Issue Date	2025-09-30
Version	1.0

Key to Abbreviations and Acronyms

- CAS: Chemical Abstracts Service Registry Number
- EC Number: European Community Number
- CLP: Classification, Labelling and Packaging Regulation (EC) No 1272/2008
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- SDS: Safety Data Sheet
- LD₅₀: Median lethal dose
- LC₅₀: Median lethal concentration

Relevant Hazard Statements (H-Statements)

- H272 - May intensify fire; oxidizer
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation

Disclaimer

The information contained in this Safety Data Sheet is provided to the best of our knowledge as of the issue date. It is based on current legislation, scientific evidence, and reliable data sources.

However, ORGANOPLANTIS make no warranties, express or implied, and assume no legal responsibility for the accuracy, completeness, or use of this data.

The user is responsible for determining the suitability of the product for any particular use and for ensuring compliance with all applicable laws and regulations in Türkiye, Azerbaijan, and other jurisdictions where the product may be marketed or applied.