Nonivamide Safety Data Sheet

Section 1 – Identification of the Substance and the Company/Undertaking

Product Identifier: Nonivamide

Supplier: Aversion Technologies, Inc. 1125 West Street, Suite 328

Annapolis, Maryland 21401 USA

+1-202-657-6300

Emergency Telephone Number: +1-202-365-9001
Product Form: Powder

Intended Use: Pepper Sprays, Repellents

Restriction on Use: None

Section 2 – Hazard(s) Identification

2.1 Hazard Classification: Acute toxicity (oral & inhalation), category 4

Eye damage / irritation, category 2A

2.2 Signal Word: Danger

2.3 Hazard Statement(s): Will cause severe irritation to the respiratory system if inhaled, severe irritation to the digestive system if

ingested, severe irritation if in contact with the eyes, irritation and redness if in contact with the skin.

2.4 Precautionary Statement(s): Avoid breathing dust. Wear protective gloves. IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Section 3 - Composition/Information on Ingredients

3.1 Chemical Name: N-[(4-hydroxy-3-methoxyphenyl)methyl]nonanamide

3.2 Common Name: Nonivamide

3.3 Synonyms: N-vanillylnonanamide

Pelargonic acid vanillylamide (PAVA)

3.4 CAS#: 2444-46-4 **3.5 Composition**: 100% Nonivamide

Section 4 – First Aid Measures

Inhalation: Remove from exposure immediately and introduce to fresh air.

Ingestion: Rinse mouth thoroughly. Drink plenty of water.

Eye Contact: Flush immediately with plenty of gently flowing clean water/saline, occasionally lifting eyelids until no evidence

of chemical remains. Obtain medical attention immediately.

Skin Contact: Remove contaminated clothing. Wash exposed areas with mild soap and water.

Section 5 – Fire Fighting Measures

 Suitable extinguishing media:
 Dry chemical, CO2, water spray, regular foam.

 Unsuitable extinguishing media:
 DO NOT USE full water jet.

Special Fire Fighting Procedures: This product does not pose a particular hazard.

Specific hazards arising from chemical: None known

Tank/trailer/train truck fires: Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of

 $rising \ sound \ from \ venting \ safety \ devices \ or \ discoloration \ of \ tank. \ ALWAYS \ stay \ away \ from \ tanks \ engulfed \ in$

flame

Section 6 - Accidental Release Measures

 Personal precautions:
 Wear disposable gloves and overalls.

 Environmental precautions:
 No special precautions are necessary.

Waste disposal: Powder should be dealt with in such a way as to prevent particles being spread in the air causing an unpleasant

taste.

Section 7 - Handling and Storage

Protective Gloves:

Precautions: While handling manually avoid contact with skin, eyes and clothing; minimize dust.

Storage: Store in cool, dry, ventilated storage and closed containers. Keep separate from food, feed stuffs, fertilizers, and

other sensitive materials.

Section 8 – Exposure Controls/Personal Protection

Occupational Exposure Limits: None Established

Appropriate engineering controls: Provide local exhaust ventilation system or other engineering controls to keep the airborne concentrations

below their respective threshold limit value. Check legal suitability of exposure level.

Respiratory Protection: Respiratory protection: Wear NIOSH or European Standard EN 149 approved full or half face piece (with goggles)

respiratory protective equipment.

Wear appropriate chemical-resistant gloves

Eye Protection: An eye wash unit and safety shower station should be available nearby work place.

Skin and Body Protection: Wear appropriate protective chemical-resistant clothing.

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Section 9 - Physical and Chemical Properties

Physical state and appearance: White Powder Vapor Pressure: Not applicable Mild odor Vapor Density: Not available Odor: Taste: Intense burning sensation Volatility: Not available Molecular Weight: Odor Threshold: Not available

293.41 g/mole

White to off-white powder Water/Oil Dist. Coeff.: Nonivamide is more soluble in oil Color: pH (1% solution/water): Not applicable Ionicity (in Water): Not available

Boiling Point: 492.7°C (918°F) @ 760mm Hg **Dispersion Properties:** Insoluble in water

Melting Point: 54-61°C (129-141°F) Solubility: Easily soluble in methanol, diethyl **Critical Temperature:** Not available ether. Insoluble in cold water

0.94600 @ 20°C Specific Gravity:

Section 10 - Stability and Reactivity

Product is stable and inert

Incompatibility (Materials to Avoid): None known

Conditions to Avoid: Certain strong oxidizing agents such as Sodium Hypochlorite and Hydrogen Peroxide

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.

Nitrogen oxides are formed when denatonium benzoate decomposes on heating or when involved in fire Hazardous decomposition products:

Section 11 - Toxicology Information

Acute oral toxicity LD50 rat: > 500 mg/kg (Rat) Dermal LD50 rabbit: > 2000 mg/kg

Acute inhalation toxicity: > 1500 mg/kg (May cause asthmatic reaction is persons allergic to Lignocaine or similar)

Skin irritation: Low skin sensitivity potential and therefore may be mildly irritating to skin

Eye irritation (rabbit): No data available Sensitization (guinea pig): No data available **Genotoxicity and Reproductive Effects:** No data available Ames test: No data available Specific target organ toxicity - single exposure: No data available Specific target organ toxicity - repeated No data available exposure:

Aspiration hazard: No data available Additional information: No data available

Further data: Handle using good occupational and environmental health practices.

Section 12 - Ecological Information

Biodegradation: Difficult to biodegrade

Recycle: Can be recycled with appropriate technologies

Section 13 - Disposal Considerations

Disposal Methods: Incinerate in authorized facility or dispose of in accordance with local regulations

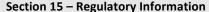
Section 14 - Transport Information

General: CLASS 6.1: Poisonous Material

Identification: Toxic solid, organic, n.o.s. (Capsaicin): UN2811 PGIII

UN No: 2811 **Special Provisions for Transport:** Not available EINECS Number: 219-484-1 CAS No: 2444-46-4 Tariff No: 2924.2995





Federal and State Regulations: TSCA 8(b) inventory: Capsaicin, Natural

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR1910.1200).

Other Classifications:

WHMIS (Canada): CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).

CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC): R38- Irritating to skin

R41- Risk of serious damage to eyes

HMIS (U.S.A.): Health Hazard: 3 Fire Hazard: 1

Reactivity: 0 Personal Protection: E

National Fire Protection Association Health: 3 (U.S.A.): Flammability: 1

Reactivity: 0 Specific hazard:

Protective Equipment: Gloves, lab coat, dust respirator, splash goggles. Be sure to use an approved/certified respirator or equivalent. Wear

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appropriate respirator when ventilation is inadequate.

Section 16 - Other Information

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