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

Product Identifier

Material Name: GLUture Topical Tissue Adhesive
Trade Name: GLUture®
Synonyms: Topical Vet Adhesive
Chemical Family: Acrylate

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Veterinary product used as adhesive
Restrictions on Use: Not for human use

Details of the Supplier of the Safety Data Sheet

Zoetis Inc.
100 Campus Drive, P.O. Box 651
Florham Park, New Jersey 07932 (USA)
Rocky Mountain Poison and Drug Center Phone: 1-866-531-8896
Product Support/Technical Services Phone: 1-800-366-5288

Emergency telephone number: CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: VMIPSrecords@zoetis.com

Zoetis Belgium S.A.
Mercuriusstraat 20
1930 Zaventem
Belgium

Emergency telephone number: International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Appearance: Clear Purple Liquid

Classification of the Substance or Mixture

GHS - Classification
Skin Corrosion/Irritation: Category 2
Serious Eye Damage/Eye Irritation: Category 2A
Skin Sensitization: Category 1
Specific target organ systemic toxicity (single exposure): Category 3
Flammable liquids- Category 4

EU Classification:
EU Indication of danger: Not determined

Label Elements

Signal Word: Warning
Hazard Statements:
H227 - Combustible liquid
H319 - Causes serious eye irritation
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H335 - May cause respiratory irritation
Precautionary Statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P264 - Wash hands thoroughly after handling
P272 - Contaminated work clothing should not be allowed out of the workplace
P233 - Keep container tightly closed
P370 + P378 - In case of fire: Use dry chemical, CO2, or alcohol foam for extinction
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312 - Call a POISON CENTRE/doctor/physician if you feel unwell
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 soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P403 + P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container in accordance with all local and national regulations

Other Hazards
Short Term:
Causes eye irritation. Signs and symptoms might include redness, swelling, blurred vision or pain. Causes skin irritation. May cause allergic skin reaction. Signs and symptoms might include skin rash, itching, redness or swelling. May cause mucous membrane and respiratory tract irritation. May be harmful if swallowed.

Australian Hazard Classification (NOHSC):

Note:
This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

Additional Information:
For a more detailed discussion of potential health hazards and toxicity see Section 11.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous</th>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EU EINECS/ELINCS List</th>
<th>EU Classification</th>
<th>GHS Classification</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-Octyl Cyanoacrylate</td>
<td>133978-15-1</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>&lt;90</td>
</tr>
<tr>
<td></td>
<td>N-Butyl Cyanoacrylate</td>
<td>6606-65-1</td>
<td>229-552-2</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>&lt;90</td>
</tr>
<tr>
<td></td>
<td>D&amp;C Violet #2</td>
<td>81-48-1</td>
<td>201-353-5</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

Additional Information: Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.
4. FIRST AID MEASURES

Description of First Aid Measures

Eye Contact: Flush eyes continuously with water for at least 15 minutes and obtain immediate medical attention. If residual adhesive remains, apply topical ophthalmic ointment to help loosen the bond. Do not pull eye lids apart.

Skin Contact: Wash off immediately with plenty of soap and water for at least 15 minutes. Obtain medical advice/assistance immediately. If unintended bonding of skin tissue occurs, peel off the adhesive, but do not pull skin apart. Application of petroleum jelly or acetone may help loosen the bond. As the epidermal layer grows, the adhesive will naturally slough off.

Ingestion: Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately. Product will polymerize rapidly adhering to the mouth. Ensure breathing passages are clear. Saliva will separate any solidified product within two days. Prevent accidental swallowing.

Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of Exposure: For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

Medical Conditions Aggravated by Exposure: Individuals with a known history of hypersensitivity to this material or other materials in its chemical class.

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician: None

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, dry powder, or foam. Do not use water.

Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Products: May emit toxic fumes during fires. May emit oxides of carbon, nitrogen, and hydrogen cyanide.

Fire / Explosion Hazards: Combustible liquid. May present a fire hazard under fire conditions. May generate flammable vapors. Vapors will form flammable or explosive mixtures with air at room temperature. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Fine particles (such as mists) may fuel fires/explosions.

Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Ensure adequate ventilation. Personnel must wear appropriate protective equipment (see Section 8). Prevent exposure by any route.

Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up
SAFETY DATA SHEET

Measures for Cleaning / Collecting:
Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean spill area thoroughly. Prevent discharge to drains.

Additional Consideration for Large Spills:
Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel. Provide adequate ventilation. Contain the source of the spill or leak and shut off all electrical equipment if it is safe to do so. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Collect spill with a non-combustible absorbent material and transfer to labeled container for disposal. Clean spill area thoroughly. Prevent runoff from entering waterways or sewers. Prevent discharge to drains.

7. HANDLING AND STORAGE

Precautions for Safe Handling:
Combustible liquid. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding and bonding procedures. Use with adequate ventilation. Minimize generating airborne mists and vapors. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Releases to the environment should be avoided.

Conditions for Safe Storage, Including any Incompatibilities:
Storage Conditions:
Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame, and other sources of ignition. Protect from moisture and humidity. Store away from direct sunlight. Store as directed by product packaging. Keep out of reach of children.

Storage Temperature:
Store at or below 30°C (86°F).

Incompatible Materials:
Reacts with water, Bases / alkalies, Amines, cotton (polymerizes). As a precautionary measure, keep away from strong oxidizers, strong acids.

Specific end use(s):
No data available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters:
Refer to available public information for specific member state Occupational Exposure Limits.

N-Butyl Cyanoacrylate
Finland OEL - TWA
0.2 ppm
1 mg/m³

Exposure Controls:
Engineering Controls:
Engineering controls should be used as the primary means to control exposures. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Personal Protective Equipment:
Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

Hands:
Wear impervious gloves if skin contact is possible.

Eyes:
Wear safety glasses or goggles if eye contact is possible.

Skin:
Use protective clothing (uniforms, lab coats, disposable coveralls, etc.) in both production and laboratory areas.

Respiratory protection:
None required under normal conditions of use. Whenever air contamination (mist, vapor or odor) is generated, respiratory protection is recommended as a precaution to minimize exposure. If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Pungent</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>Mixture</td>
</tr>
<tr>
<td>Solvent Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble (polymerizes in the presence of water)</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting/Freezing Point (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point (°C)</td>
<td>83-84°C / 181.4-183.2°F @ 3 mm Hg</td>
</tr>
<tr>
<td>Partition Coefficient: Method, pH, Endpoint, Value</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate (Gram/s)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure (kPa)</td>
<td>&lt;0.4 mm Hg @ 25°C/77°F</td>
</tr>
<tr>
<td>Vapor Density (g/ml)</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.0 @ 20°C/68°F</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature (Solid) (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (Solids)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point (Liquid) (°C)</td>
<td>&gt;85°C/185°F</td>
</tr>
<tr>
<td>Upper Explosive Limits (Liquid) (% by Vol.)</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower Explosive Limits (Liquid) (% by Vol.)</td>
<td>No data available</td>
</tr>
<tr>
<td>Polymerization</td>
<td>Polymerization can occur.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No data available</td>
</tr>
<tr>
<td>Chemical Stability</td>
<td>Stable under normal conditions of use.</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions</td>
<td>Non-oxidizing</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Avoid moisture, heat, flames, sparks, and other sources of ignition. Exposure to sunlight.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Reacts with water, Bases/alkalies, Amines, cotton (polymerizes). As a precautionary measure, keep away from strong oxidizers, strong acids.</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>Thermal decomposition products may include carbon monoxide, carbon dioxide and other toxic vapors. Thermal decomposition products may include oxides of nitrogen and Hydrogen cyanide (hydrocyanic acid).</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects
General Information: Toxicological properties of the formulation have not been investigated. The information in this section describes the potential hazards of the individual ingredients and the formulation. Routes of exposure: eye contact, skin contact

Acute Toxicity: (Species, Route, End Point, Dose)
2-Octyl Cyanoacrylate
Rat Oral LD50 > 5000 mg/kg (analagous compound)
11. TOXICOLOGICAL INFORMATION

N-Butyl Cyanoacrylate

Rat Oral LD50 > 5000 mg/kg (analagous compound)

**Acute Toxicity Comments:** A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

**Inhalation Acute Toxicity**
May cause respiratory tract and mucous membrane irritation

**Ingestion Acute Toxicity**
May be harmful if swallowed

**Irritation / Sensitization:** (Study Type, Species, Severity)

**Irritation / Sensitization Comments:**
May cause eye irritation. May cause eye lids to bond.

**Skin Irritation / Sensitization**
May cause skin irritation. Will bond skin. May cause burns if dropped on clothing in contact with skin. May cause allergic reactions in susceptible individuals.

**Genetic Toxicity:** (Study Type, Cell Type/Organism, Result)

**N-Butyl Cyanoacrylate**

Bacterial Mutagenicity (Ames) *Salmonella* Negative with activation, without activation (at cytotoxic levels)

*In Vitro* Chromosome Aberration Human Lymphocytes Negative with activation, without activation

*In Vivo* Micronucleus Mouse Negative

**Carcinogen Status:** None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

**Environmental Overview:**
Environmental properties of the formulation have not been investigated. Releases to the environment should be avoided.

**Toxicity:**
No data available

**Persistence and Degradability:**
No data available

**Bio-accumulative Potential:**
No data available

**Mobility in Soil:**
No data available
13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

This material is not regulated for transportation per IATA, IMDG or ADR.

U.S. DOT: This material is only regulated for transportation as a hazardous material/dangerous good when shipped in bulk packages (>= 450L/119 gal. per package)

DOT

DOT UN / ID No: NA1993
DOT Proper shipping name: Combustible Liquid, n.o.s. (2-Octyl Cyanoacrylate, N-Butyl Cyanoacrylate)
DOT Hazard Class: Comb liq.
DOT Packing Group: III

Requirements for combustible liquids do not apply to a material classed as a combustible liquid in a non-bulk packaging unless the combustible liquid is a hazardous substance, a hazardous waste, or a marine pollutant. See 49 CFR 173.150 for details.

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Canada - WHMIS: Classifications
WHMIS hazard class:
Class D, Division 2, Subdivision B
This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

2-Octyl Cyanoacrylate
CERCLA/SARA 313 Emission reporting Not Listed
California Proposition 65 Not Listed
Inventory - United States TSCA - Sect. 8(b) Present
EU EINECS/ELINCS List Not Listed
15. REGULATORY INFORMATION

N-Butyl Cyanoacrylate
- CERCLA/SARA 313 Emission reporting: Not Listed
- California Proposition 65: Not Listed
- Inventory - United States TSCA - Sect. 8(b): Not Listed
- Australia (AICS): Present
- EU EINECS/ELINCS List: 229-552-2

D&C Violet #2
- CERCLA/SARA 313 Emission reporting: Not Listed
- California Proposition 65: Not Listed
- Inventory - United States TSCA - Sect. 8(b): Present
- Australia (AICS): Present
- EU EINECS/ELINCS List: 201-353-5

16. OTHER INFORMATION

Data Sources: The data contained in this SDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

Reasons for Revision: New data sheet.

Prepared by: Toxicology and Hazard Communication
Zoetis Global Risk Management

Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

End of Safety Data Sheet