

**Title: Material Safety Data Sheet Template**

Form 82	Rev 02
DCN: 215	
Issue Date: <b>01 MAR 2019</b>	

## MATERIAL SAFETY DATA SHEET

**Section 1: Substance and Company Identification**
**Manufacturer Address:**

Ashland Specialties Ireland Ltd.,  
National Science Park, Building V  
Dublin Road, Petitswood  
Mullingar, Co. Westmeath  
Ireland, N91 F6PD

**Company Contacts:**

Phone: +353 (0)87 360 8041  
email: asma.tahir@ashland.com

Product Name:	Source:	CAS Number:
ViateI™ Poly(D,L-lactide) (PDLLA)	D,L-Lactide	26680-10-4

Chemical Name	Poly[oxy(1-methyl-2-oxoethylene)] or Poly[3,6-dimethyl-1,4-dioxane-2,5-dione]
Chemical Formula	CH <sub>3</sub> O(C <sub>6</sub> H <sub>8</sub> O <sub>4</sub> ) <sub>n</sub> H

**Section 2: Composition and Information on Ingredients**

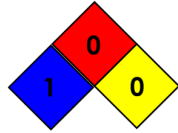
Ingredient Name(s)	D,L-Lactide Tin II ethylhexanoate
CAS Numbers	97-73-4 301-10-0
Principle Hazardous Components	Nil
Hazardous Component Content (wt%)	<5%
Biological Activity	Variable [%]
EC Numbers	202-468-3 206-108-6
Exposure Limits	No data available

**Section 3: Hazards Identification**

Potential Acute Health Effects	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. This substance is not classified as dangerous according to Directive 67/548/EEC.
Potential Chronic Health Effects	No data available
Threshold Limit Value (TLV)	No data available
Signs and Symptoms of Exposure	No data available



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NFPA ratings (scale 0-4)	Health = 1 Flammability = 0 Reactivity = 0	
Chemical Listed as Carcinogen or Potential Carcinogen	No	

<b>Section 4: First Aid Measures</b>	
Emergency & First Aid Procedures	No special measures required.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Eyes	Flush eyes with water as a precaution.
Skin	Wash off with soap and plenty of water.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water.

<b>Section 5: Fire and Explosion Hazards</b>	
Special Fire Fighting Procedures	Wear self-contained breathing apparatus for firefighting if necessary.
Auto-Ignition Temperature	N/A
Flash Point	N/A
Flammable Limits in Air (% by Volume)	N/A
Extinguisher Media	Water spray, carbon dioxide, dry chemical foam
Unusual Fire and Explosion Hazards	N/A
Stability	Stable

<b>Section 6: Accidental Release Measures</b>	
Precautions to be Taken in Handling and Storage	Wear appropriate protective clothing, glasses/goggles and gloves (personal protective equipment, PPE)
Other Precautions	N/A
Steps to be Taken in Case of Spill	No special environmental precautions required
Waste Disposal Methods	Sweep up and shovel. Keep in suitable, closed containers for disposal.



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<b>Section 7: Handling and Storage</b>	
Storage	<p>When stored in the original packaging at low temperatures (-15°C), recommended shelf life is three years.</p> <p>Current market research indicates that PDLLA stored at room temperature will keep initial properties for at least one year.</p> <p>Allow the material to reach room temperature before opening the packaging. After opening the original packaging, this product is best stored in an inert atmosphere and at low temperatures (-15°C).</p>
Handling	<p>Wear appropriate PPE. Do not inhale dust. Provide appropriate exhaust ventilation at places where dust is formed.</p>

<b>Section 8: Exposure Controls and Personal Protection</b>	
Respiratory Protection	None required in well ventilated area
Mechanical (General)	Vent fan sufficient to maintain concentration below OELV
Ventilation	Advisable
Protective gloves	<p>Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.</p> <p>The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.</p>
Eye protection	Either safety glasses or goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Other protective clothing or equipment	Sensitive individuals should wear dust masks/respirators, protective gloves, eye protection, lab coat, apron or other protective clothing to minimise contact.

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<b>Section 9: Physical and Chemical Properties</b>	
Appearance and Odour	White Granules/Particles
Solubility in water	Soluble
Melting point	N/A
Specific Gravity	N/A
Vapour Pressure	N/A
Volatility	N/A

<b>Section 10: Stability and Reactivity</b>	
Stability	Stable under recommended storage conditions. Broken down by water.
Corrosivity	N/A
Hazardous Decomposition Products	Carbon oxides, nitrogen oxides (NOX)
Hazardous Polymerisation	Does not occur
Incompatibility (Materials to Avoid)	Exposure to moisture.

<b>Section 11: Toxicological information</b>	
Routes of Exposure	No data available
Toxicity to Animals	No data available
Toxicity to humans	No data available
Carcinogenicity	No data available
Mutagenic/Teratogenic Effects	No data available

<b>Section 12: Ecological Information</b>
Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation: Lactic Acid, Carbon Dioxide, Ethylene glycol polymer.
Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

<b>Section 13: Disposal Considerations</b>
<ol style="list-style-type: none"> <li>1. Dispose of waste in accordance with applicable national and EU/international regulations</li> <li>2. Chemical residues are generally classified as special waste and, as such, the transportation, storage, treatment and disposal of this waste must be conducted in accordance with applicable regulations.</li> </ol>



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| 3. | Rinse empty containers thoroughly before disposal.                         |
| 4. | Offer surplus and non-recyclable solutions to a licensed disposal company. |

Section 14: Transport Information	
Proper Shipping Name	Not regulated
Hazard Class	N/A
Packaging Group	N/A
Reportable Quantity	N/A
Labels Required	N/A
Interational Transportation Regulations	Not regulated
UN/NA Code	N/A

Section 15: Regulatory Information	
US Regulations	Material(s) listed are not known to be regulated at this concentration.
Irish Regulations	Material(s) listed are not known to be regulated at this concentration.
EU/International Regulations	This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Section 16: Other Useful Information
<b>Disclaimer</b>
<p>The information contained in the MSDS relates only to the materials designated and does not relate to uses in combination with any other materials, processes and/or chemical reactions.</p> <p>Ashland Specialties Ireland Ltd provides this information to the best of our knowledge and in good faith but does not assume liability for accuracy or completeness</p> <p>We do not assume liability for damages resulting from the handling, use and/or disposal of these products</p> <p style="text-align: center;"><b>Ashland Specialties Ireland</b> National Science Park, Building V Dublin Road, Petitswood Mullingar, Co. Westmeath Ireland, N91 F6PD</p>