



## Section 1: Identification of the Material and Supplier

**Product Name:** Teat Shield

**Other Names:** Iodophor in surfactant solution.

**Proper shipping name (ADG Code):** None assigned.

**Recommended use:** As a teat dip and spray for dairy cows.  
Use as directed on the product label.

**Supplier:** DASCO Pty. Ltd.,  
ABN: 14 004 581 113  
24 - 26 Helen Street, HEIDELBERG HEIGHTS VIC 3081  
Tel: (03) 9459 7004 (business hours)  
Fax: (03) 9459 9200

**Emergency Phone Numbers:**  
Transport/Fire Emergency: 000 (Emergency services)  
Medical Emergency: 131126 (Poisons Information Centre)

## Section 2: Hazards Identification

Classified as hazardous according to criteria of Worksafe Australia.

Non-dangerous goods.

**Risk Phrases:** R: 41 Risk of serious damage to eyes.

**Safety Phrases:** S: 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S: 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

## Section 3: Composition/Information on Ingredients

**Ingredients:**

Nonyl phenol ethoxylates	[9016-45-9]	10 - 30 %
Iodinated glycerol	[5634-39-9]	< 10 %
Other ingredients deemed not to be hazardous		< 10 %
Water	[7732-18-5]	to 100 %

## Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131 126) or a doctor.

Swallowed: Do not induce vomiting.

Skin: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

Eyes: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

Inhaled: Remove from exposure.

### First Aid facilities:

Recommended: Eye wash. Hand wash basin.  
Emergency shower if handling industrial quantities.

### Advice to Doctor:

Product is a dilute aqueous solution of an iodophor, containing a moderate proportion of nonyl phenol ethoxylate. May cause serious damage to eyes. If swallowed, vomiting should not have been induced because of risk of aspiration into the lungs. Contact Poisons Information Centre.

### Aggravated medical conditions:

Pre-existing sensitivity to iodine, pre-existing skin disorders, eye problems, impaired respiratory function, or disease of the thyroid, lungs or kidney.

## Section 5: Fire Fighting Measures

HAZCHEM Code: None assigned.

Extinguishant: Water.

Risk of violent reaction or explosion: No.

Products of combustion: Water vapour, iodine, carbon dioxide.

Protective Equipment: Breathing apparatus and protective gloves for fire only.

## Section 6: Accidental Release Measures

### Emergency Procedures:

Contain.

### For large spills:

Contain spillage using sand or earth. Transfer both liquids and solids to suitable container. Treat residues as for small spillages.

### For small spills:

If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb on inert absorbent, transfer to suitable closed container and arrange removal by disposals company.

## Section 7: Handling and Storage

### Precautions for safe handling:

Avoid contact with skin and eyes.  
Keep away from acids, oxidising agents.

### Conditions for safe storage:

Store in a cool, well ventilated place, out of reach of children. Large quantities should be stored in a bunded area. Store in original container. Keep container tightly closed and out of direct sunlight. Keep away from acids, oxidising agents. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

### Incompatibles:

Oxidising agents, strong acids.

## Section 8: Exposure Controls/Personal Protection

### National Exposure Standards:

<b>ES-TWA:</b>	Iodine	0.1 ppm, 1 mg/m <sup>3</sup>
<b>ES-STEL:</b>	None assigned.	
<b>ES-PEAK:</b>	Iodine	0.1 ppm, 1 mg/m <sup>3</sup>
<b>Notations:</b>	None.	

*[Peak] indicates a ceiling concentration which should not be exceeded, even momentarily.*

**Biological Limit Values:** No data found.

### Engineering Controls:

Ensure adequate ventilation (same as outdoors) when using. If handling industrial quantities, or if vapour risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible, and at least below the TLV.

### Personal Protective Equipment:

Avoid contact with skin and eyes. Avoid breathing the vapour. Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:-

#### Normal Use:

Eye/face protection  
Gloves, rubber or plastic.

#### Industrial Quantities:

Face shield or safety glasses  
Gloves, rubber or plastic  
Plastic apron, sleeves and boots  
Impervious overalls.

## Section 9: Physical and Chemical Properties

Appearance: Dark brown, frothing liquid.  
Odour: Characteristic odour of iodine.  
pH: About neutral.  
Vapour Pressure: No data.  
Vapour Density: No data.  
Boiling Point: No data.  
Melting Point: No data.  
Volatiles: About 75 % [mostly as water]  
Volatile Organic Compounds (VOC): < 2 %  
Evaporation Rate: No data.  
Solubilities: Miscible with water.  
Specific Gravity/Density: 1.0 - 1.1 g/mL @ 20 °C  
Flash Point: None.  
Flammable Limits: None.  
Dust Explosion: Not applicable.  
Auto-ignition Temperature: No data.

### Other Information:

May react with strong oxidising agents.  
May decompose slowly on exposure to light.  
May evolve iodine vapour on heating. Slippery when spilled.

## Section 10: Stability and Reactivity

**Chemical Stability:** Stable under normal conditions.  
**Conditions to Avoid:** Incompatible materials, heat, sunlight.  
**Incompatible Materials:** Oxidising agents, mineral acids.  
**Hazardous Decomposition Products:** Iodine.  
**Hazardous Reactions:** Heating, or contact with strong mineral acids, may generate iodine vapour.

## Section 11: Toxicological Information

### Health Effects:

No data available for the mixture. Information presented relates to individual ingredients.

<b>Acute:</b>	<b>Swallowed:</b>	<p>Large quantities may be fatal. Likely to cause gastric upset, nausea, abdominal discomfort or pain, possible vomiting and diarrhoea. Large doses may cause salivation, excessive tearing, swelling of eyelids, soreness and swelling of salivary glands, metallic taste, skin rash, fever and enlarged lymph glands. Very large doses may cause severe vomiting, diarrhoea, abdominal pain, thirst, shock, fever, suppression of urine, delirium, stupor and death.</p>
	<b>Skin:</b>	<p>Will stain the skin. Prolonged contact likely to cause irritation, skin damage, and may penetrate the skin, leading to symptoms similar to poisoning by other routes. Will degrease the skin which may enhance penetration by iodine.</p>
	<b>Eyes:</b>	<p>Vapour and liquid will stain eyes. May be severely irritating to eyes. Risk of permanent corneal damage.</p>
	<b>Inhaled:</b>	<p>Iodine vapour will irritate the respiratory system at 0.1 ppm. Vapours will be unbearable at 0.3 ppm. Vapour or spray/mist will cause tearing of the eyes, tightness in the chest, sore throat and headache. Symptoms of painful coughing and breathing difficulties may continue for several weeks. Aspiration into the lungs during swallowing or vomiting may cause serious lung injury.</p>
<b>Chronic:</b>	<p>Repeated exposure to this product may lead to iodism and thyroid deficiency. Iodine is a sensitiser, and for some individuals a repeated exposure may lead to a rash, swelling of the vocal cords, general allergic reaction, and swelling and pain in the joints.</p> <p>Iodinated glycerol has shown some evidence of carcinogenic effects in rats and mice by gastric lavage, and is classified as carcinogenic and neoplastic by RTECS criteria. <span style="float: right;">(1)(2)</span></p>	
<b>LD 50 :</b>	Nonyl phenol ethoxylate	<p>3,000 mg/kg oral, mouse. 3,000 mg/kg skin, mouse.</p>
	Iodinated glycerol	<p>6,000 mg/kg oral, rat.</p>
	Iodine	<p>14,000 mg/kg oral, rat 10,000 mg/kg oral, rabbit.</p>
<b>LDLo :</b>	Iodine	<p>28 mg/kg oral, human. 800 mg/kg oral, dog.</p>
<b>LCLo :</b>	Iodine	<p>800 mg/m<sup>3</sup>/1 hr, rat</p>

## Section 12: Ecological Information

<b>Ecotoxicity:</b>	Iodine and iodophors are toxic to aquatic organisms.
<b>Persistence and degradability:</b>	The surfactant used in this product is not considered to be readily biodegradable.
<b>Mobility:</b>	Readily transported by water.
<b>Environmental Fate:</b>	No data.
<b>Bioaccumulative potential:</b>	No data.
<b>Other adverse environmental effects:</b>	No data.

## Section 13: Disposal Considerations

The generator of any wastes from this product is responsible for its proper classification, transport and disposal.

Consult appropriate local and State regulations.

**Disposal methods and containers:**

Avoid disposal to natural waters or the environment.

**Special precautions for landfill or incineration:**

Unsuitable for incineration.

## Section 14: Transport Information

<b>UN Number:</b>	None assigned.
<b>UN Proper shipping name:</b>	None assigned.
<b>Class and subsidiary risk:</b>	None assigned.
<b>Packaging group:</b>	None.
<b>Special precautions for user:</b>	Protect from light. Keep away from oxidising agents, mineral acids.
<b>HAZCHEM Code:</b>	None assigned.
<b>Material for export:</b>	Not regulated.

## Section 15: Regulatory Information

**Poisons (SUSDP):** Poison Schedule 6:  
Iodophor with more than 1.5 % available iodine.

**Dangerous Goods:** No.

<b>Carcinogen:</b>	<b>Australia</b>	<b>IARC</b>	<b>NTP</b>	<b>RTECS</b>
	No.	No.	Yes.	Yes.

**Agricultural and Veterinary Chemicals Act:**

This product is registered with the Australian Pesticides and Veterinary Medicines Authority (**APVMA**).

**Australian Inventory of Chemical Substances (AICS):** Listed.

**Other National/International Regulations:** No data.

## Section 16: Other information

**Date of MSDS preparation/update:** September 2009  
Complete review and update.

**Abbreviations:**

NOHSC - National Occupational Health and Safety Commission.  
ACGIH - American Conference of Governmental Industrial Hygienists.  
MAK - Maximum workplace concentration - Germany,  
(*maximale Arbeitsplatzkonzentration*)  
IARC - International Agency for Research on Cancer (France).  
NTP - National Toxicology Program (USA).  
RTECS - Registry of Toxic Effects of Chemical Substances.

**Literature references:**

- (1) *National Toxicology Program Technical Report Series.*  
(Research Triangle Park, NC 27709, USA) No: 206 -  
NTP-TR-340, 1990.
- (2) *National Technical Information Service (Springfield,*  
*VA 22161) formerly US Clearinghouse for Scientific &*  
*Technical Information. PB90-259102.*

**Available Sources of Data:**

*National Code of Practice for the Preparation of Material Safety Data  
Sheets 2nd Edition [2011(2003)] - NOHSC.*  
*Australian Dangerous Goods Code.*  
*Standard for the Uniform Scheduling of Drugs and Poisons - AHMAC.*  
*Exposure Standards for Atmospheric Contaminants in the  
Occupational Environment [1003]- NOHSC.*  
*List of Designated Hazardous Substances [10005] - NOHSC.*  
*Merck Index - Merck Inc.*  
*Sax's Dangerous Properties of Industrial Materials - Lewis.*  
*Handbook of Toxic and Hazardous Chemicals and Carcinogens - Sittig.*  
*Handbook of Reactive Chemical Hazards - Bretherick.*  
*Hawley's Condensed Chemical Dictionary - Wiley Interscience.*  
*AUSREG's Chemical Data Package for PCs - AUSREG Consultancy.*