



# MATERIAL SAFETY DATA SHEET

## PRODUCT NAME : 'O' RINGS (NITRILE) & RUBBER VACUUM TUBING

Eye Effects: None under normal conditions of use.  
Skin Effects: None under normal conditions of use.  
Ingestion/Oral Effects: None under normal conditions of use.  
Inhalation Effects: None under normal conditions of use. Inhalation of fumes released at high temperature can be irritating to the lungs and fatal.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

NFPA Hazard codes		HMIS Hazard codes		Rating System
Health	1	Health	0	0 = No Hazard
Flammability	0	Flammability	0	1 = Slight Hazard
Instability	0	Reactivity	0	2 = Moderate Hazard
				3 = Serious Hazard
				4 = Severe Hazard

### 4. First Aid Measures

Eyes: No effects requiring first aid are expected during normal use. However, if small particles enter the eye, flush with sterile water for at least 10 minutes. If irritation persists seek medical attention.

Skin: No effects requiring first aid are expected during normal use. After contact with skin, wash with soap and water.

Ingestion/Oral: No effects requiring first aid are expected during normal use. If ingested, do not induce vomiting. If conscious, drink copious amounts of water.

Inhalation: No effects requiring first aid are expected during normal use. If exposed to fumes received from decomposition products\*, remove the patient to fresh air. If breathing problems occur, a qualified individual should administer oxygen or artificial respiration as indicated. Seek immediate medical attention.

Other Information: \* In all cases of exposure to thermally degraded product, seek immediate medical advice, indicating that hydrogen cyanide is a decomposition product.

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#### 5. Fire Fighting Measures

- Extinguishing Media: Water spray, dry powder, carbon dioxide, alcohol-resistant foam.
- Fire and Explosion Hazard: Once ignited, nitrile will continue to burn with the evolution of dense smoke. Hazardous decomposition products resulting from overheating or combustion: carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide and small amounts of aliphatic and aromatic hydrocarbons.
- Special Protective Equipment for Fire Fighters: Inhalation of fumes must be avoided. Fire fighters should wear a self-contained breathing apparatus (SCBA) which meets appropriate standards operated in positive pressure mode, and full turnout gear. Wear adequate skin protection to protect from thermal combustion products.

For Flammability Properties - see Section 9

#### 6. Accidental Release Measures

No material specific actions are required. Collect the spilled items and reuse or dispose as in Section 13.

#### 7. Handling and Storage

- Handling: No special precautions required.
- Storage: Store in cool well ventilated space away from direct sunlight and sources of ignition. Store in original packaging showing code numbers and date of manufacture.

#### 8. Exposure Controls/Personal Protection

##### Exposure Limits:

Ingredient	ACGIH - TLV -	OSHA - PEL	Occupational Exposure Limits EH40 (UK)
Acrylonitrile butadiene copolymer with curatives, additives, fillers, oils and anti-degradants added to obtain specific material properties	No data available	No data available	Rubber fumes - maximum exposure - 0.6 mg/m <sup>3</sup> (8h TWA)

Toxic decomposition products should be independently monitored.

##### Personal Protection:

- Engineering Measures: None required under conditions of normal use.
- Respiratory Protection: None required under conditions of normal use.
- Hand/Skin Protection: None required under conditions of normal use.
- Eye/Face Protection: None required under conditions of normal use. Wear safety glasses when cutting/machining tubing.
- Hygiene Measures: Practice good workplace hygiene. Do not eat or smoke when handling. Wash hands after handling and before eating.
- Other/General Protection: None.

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#### 9. Physical and Chemical Properties

Appearance and Odour	Black rubber. Mild aromatic odour	Boiling point	No data available	°C/°F
pH (as supplied)	No data available	Freezing Point	No data available	°C/°F
Solubility in Water	Insoluble	Auto Ignition	> 200 / 392	°C/°F
Volatile Content by Volume	No data available	Flash Point	> 200 / 392	°C/°F
Specific Gravity	1.00 - 1.65			
Vapour Pressure (mbar)	No data available	Vapour Pressure (Torr)	No data available	

#### 10. Stability and Reactivity

Stability: Stable.

Material/Conditions to Avoid: Strong acids and oxidisers. Temperatures higher than 200 °C /392 °F.

Hazardous Decomposition: Carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide and small amounts of aliphatic and aromatic hydrocarbons.

Hazardous Polymerisation: Will not occur.

#### 11. Toxicological Information

For a comprehensive description for the various toxicological (health) effects which may arise if the user comes into contact with the substance or preparation refer to Section 3 Hazards Identification.

##### Animal data:

LD50 value: No data available.

LC50 value: No data available.

##### Carcinogenicity:

No known carcinogenic hazardous effects.

#### 12. Ecological Information

The ecological effects of the product have not been established. The product is not expected to be substantially biodegradable. The material contains no chlorofluorocarbons (CFCs).

#### 13. Disposal Considerations

The material must be properly contained. Dispose of at approved landfill sites, or by high temperature incineration, using licensed contractors. Disposal must be in accordance with local authority and national regulations.

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### PRODUCT NAME : 'O' RINGS (NITRILE) & RUBBER VACUUM TUBING

#### 14. Transport Information

This product is not classified as dangerous under transport regulations.

PARAMETER	EUROPEAN	CANADIAN TDG	UNITED STATES DOT
Proper Shipping Name	Not applicable	Not applicable	Not applicable
Hazard Class	Not applicable	Not applicable	Not applicable
Identification Number	Not applicable	Not applicable	Not applicable
Shipping Label	Not applicable	Not applicable	Not applicable

#### 15. Regulatory Information

##### European Regulatory Information

This product has been classified in accordance with the Dangerous Substances Directive (67/548/EEC, as amended) and the Preparations Directive (88/379/EEC, as amended), implemented in the UK as the Chemical (Hazard Information and Packing) Regulations 1994 (CHIP, as amended).

Classified as dangerous to supply : No

Risk Phrases : Not applicable

Safety Phrases : Not applicable

Symbols : None

##### United States Regulatory Information

Product is a manufactured article not subject to TSCA listing.

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION:

This product constitutes an "article" and, as such is exempt from SARA 313 reporting requirements (40 CFR Part 372.38, Paragraph B).

California Proposition 65: Release of ingredients contained in this product to the environment is not anticipated.

##### Canadian Regulatory Information

WHMIS Classification: Product is a manufactured article not subject to WHMIS regulations.

Product is a manufactured item not subject to DSL listing.

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#### 16. Other Information

This MSDS is compiled in accordance with ANSI Z400.1 and the EU Safety Data Sheet Directive 91/155/EEC.

Sources of information for this data sheet:

- Busak + Shamban (Trelleborg Sealing Solutions) "NBR-Compound" Safety Data Sheet EG 93/112-NORM. Issued: 15.05.2002. Revision: 24.03.2004. Version: 2.0.

#### Glossary:

ACGIH - American Conference of Governmental Industrial Hygienists; ANSI - American National Standards Institute; Canadian TDG - Canadian Transportation of Dangerous Goods; CAS - Chemical Abstracts Service; Chemtrec - Chemical Transportation Emergency Center (US); CHIP - Chemical (Hazard Information and Packing); DSL - Domestic Substances List; EH40 (UK) - HSE Guidance Note EH40 Occupational exposure limits; HMIS - Hazardous Material Information Service; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OSHA - Occupational Safety and Health Administration, US department of Labour; PEL - Permissible exposure limit; SARA (Title III) - Superfund Amendments and Reauthorization Act; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self-Contained Breathing Apparatus; TLV - threshold limit value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-Weighted Average; US DOT - US Department of Transportation; WHMIS - Workplace Hazardous Materials Information System.

#### Revisions:

Nov 2007 - Data Sheet updated to reflect the latest supplier safety information.

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