

# TECHNICAL INFORMATION

## **Tecsol NUTLOCK Removable Threadlocker/Sealant TECHNICAL FEATURES**

### **DESCRIPTION**

Tecsol Nutlock is a general purpose Removable medium strength product. All removable Nut grades will hold all metric and imperial or conventional sized nuts and bolts, meeting the requirements of over 80% of fastening applications. T42 does not run off or drip and does not migrate after assembly. Once applied, parts slip together easily, lubricated by the adhesive.

### **APPLICATIONS**

Replaces lock washers and plastic inserts. Locks machine tool access bolts, studs and hydraulic system bolts. Used on gear box bolts/driveshaft, bearing cover cap screws, counter sunk screws, conveyor roller bolts and construction equipment.

### **USEFUL HINTS/NOTES**

Using Nutlock is easy, the products are colour coded blue and, once cured, they seal and vibration proof the assembly, giving controlled breakloose and prevailing torque's. Using conventional tools you can disassemble parts. When force is applied, the parts break loose (first movement) but it will take several turns before the cured film will stop resisting the turning action, thus ensuring against component disassembly.

### **PROPERTIES**

Controlled torque tension. Easily removed with conventional tools.

### **COMPATIBLE**

#### **ACCELERATORS/PRIMERS**

Primers such as A471 (Standard Anaerobic Activator) or the faster A649 Structural Accelerator can be used, however, up to 30% strength loss can occur when using accelerators.

Resin.....	Dimethacrylate
Colour.....	Blue Thixotropic
Cure Speed With Activator.....	<5 minutes
Cure Speed with Activator.....	20 minutes @ 25°C
Viscosity.....	1500 cps
Gap Fill.....	0.25mm
Flash Point.....	>80°C
Shelf Life.....	12 months @ 20°C
Specific Gravity.....	1.06
Max. Operating Temperature.....	-50°C to + 150°C

### **CURED PERFORMANCE**

Full Cure Time:.....	24 hours
Typical Breakaway Strength:.....	16N.m
Typical Prevailing Strength:.....	8Nm
Typical Prevailing Strength:DIN 54454...8-(15)Nm(12)	
Typical Breakaway Strength DIN54454...22N.m	
Fixture time steel:.....	20minutes approx

### **STORAGE**

Store in a cool area out of direct sunlight. Refrigeration to 5°C gives optimum storage stability.

### **PRESENTATION**

Bottles:.....10ml.,50ml & 250g

### **HEALTH & SAFETY IN USE**

**IRRITANT:** Contains Methacrylate Esters and some products contain small amounts of Acrylic Acid.  
Irritates eyes, the respiratory organs and the skin. In case of contact with the skin wash immediately with plenty of water.

The information contained herein is produced in good faith and is believed to be reliable but is for guidance only. Trade Secrets and its agents cannot assume liability or responsibility for results obtained in the use of its products by persons whose methods are outside or beyond our control. It is the users responsibility to determine the suitability of any of the products and methods of use or preparation prior to use mentioned in out literature and furthermore the users responsibility to observe and adopt such precautions as may be advisable for the protection of personnel and property in the handling and use of any of our products.

# Tecsol Nutlock

1. IDENTIFICATION OF PRODUCT & COMPANY						
PRODUCT NAME - <b>NUTLOCK</b> INTENDED USE - <b>No relevant information</b> SUPPLIER – <b>Trade Secrets, 61 lakeside Boulevard, Doncaster, South Yorkshire, DN4 5PL</b>						
2. COMPOSITION / INFORMATION OF INGREDIENTS						
A blend of plasterciser(s), dimethacrylate resin(s), flexibiliser(s), stabiliser(s) p.t.f.e.and pigment(s) For details of substances presenting a health hazard within the meaning of the Chemicals (Hazard Information & Packing) regulations 1993 see under Section 8 of this Safety Data Sheet.						
3. HAZARDS IDENTIFICATION						
Prolonged contact with product may result in the removal of essential fats and may result in dermatitis unless good personal hygiene is used. May cause sensitisation by skin contact - Irritating to eyes, respiratory system and skin.						
4. FIRST AID MEASURES						
<b>General:</b> In all cases of doubt or when symptoms persist seek medical attention. Never give anything by mouth to an unconscious person. <b>First Aid for Inhalation:</b> Remove to fresh air, keep warm and at rest. If breathing is irregular or stopped give artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice. <b>First Aid for Skin Contact:</b> Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do not use solvents or thinners. <b>First Aid for Eye Contact:</b> Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes holding the eyelids apart, seek medical advice. <b>First Aid for Ingestion:</b> If accidentally swallowed obtain immediate medical attention. Keep at rest. <b>DO NOT</b> induce vomiting.						
5. FIREFIGHTING MEASURES						
<b>Extinguishing Media:</b> Carbon Dioxide, Dry Powder, Sand, Foam, Water Spray Mist. NOT TO BE USED- <b>SPECIAL INSTRUCTIONS FOR FIRE FIGHTING PERSONNEL</b> - Fire will produce dense black smoke containing hazardous products of combustion (see Section 10.) Decomposition products may be a hazard to health. Appropriate self-contained breathing apparatus may be required. Cool closed containers exposed to fire with a water spray. Do not allow water run off from fire fighting to enter drains or water courses.						
6. ACCIDENTAL RELEASE MEASURES						
Exclude sources of ignition and ventilate the area. Exclude non-essential personnel. Avoid breathing vapours. Refer to protective measures listed in sect.7&8 Do not allow large quantities to enter drains or water courses. If it does local water companies should be contacted, in case of contamination of streams or rivers or lakes the National Rivers Authority Contain and collect spillage's with non-combustible absorbent materials e.g. sand, earth and place in suitable container for disposal in accordance with the waste regulations.						
7. HANDLING AND STORAGE						
Avoid skin & eye contact. For personal protection see sect.8. Good housekeeping and regular removal of waste materials will minimise risks. Observe the label precautions. Store between 5 & 25°C in a dry well ventilated place away from sources of heat, ignition and direct sunlight. No smoking.						
8. EXPOSURE CONTROLS / PERSONAL PROTECTION						
<b>Engineering Measures</b> - Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If extraction methods are insufficient to maintain concentrations of particulates and/or solvent vapours below relevant OEL's, suitable respiratory protective equipment should be worn.						
Substance Name	% Conc Range	Symbol	OES 8 hr ppm	OES 15 min ppm	Risk Phrases	Notation
2-HYDROXYETHYL METHACRYLATE DIBUTYLPHTHALATE						
<b>Notes</b> Notations = Sk - risk or absorption through skin Sen - respiratory sensitiser. OES = Occupational Exposure Standard MEL - Maximum Exposure Limit. OEL's are from EH40 except where marked SUP which are assigned by the supplier of the substance. <b>General Protection</b> - All ppe, including rpe, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH regulations. <b>Respiratory Protection</b> - If exposure to hazardous substances identified above cannot be controlled by provision of local exhaust ventilation & good general extraction, suitable respiratory protective equipment should be worn. <b>Hand Protection</b> - Full physical protection is best. Seek relevant advice from glove manufacturers. Barrier cream may be of help but should not be applied after exposure has occurred. <b>Eye Protection</b> - Eye protection designed to protect against liquid splashes should be worn. <b>Skin Protection</b> - Cotton or cotton/synthetic overalls or coveralls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a proprietary skin cleaner.						

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## MATERIAL SAFETY DATA SHEET FOR Tecsol Nutlock

9. Physical & Chemical Properties			
Physical State	Blue Thixotropic	Vapour Density	Heavier than Air

<b>Flash Point</b>		<b>Lower Explosion Limit</b>	
<b>Viscosity</b>	1000000 Method Brookfield	<b>Solubility in Water</b>	Immiscible
<b>Specific Gravity</b>	1.00 gms/cc Method Calculation		
<b>10. STABILITY AND REACTIVITY</b>			
Stable under the recommended storage & handling conditions (see sect.7) Keep away from oxidising agents and strongly alkaline and acid materials to prevent the possibility of an exothermic reaction.			
<b>11. TOXICOLOGICAL INFORMATION</b>			
Acrylate components have irritant properties. Prolonged or repeated exposure with skin or mucous membrane may result in irritant symptoms such as redness blistering or dermatitis. Splashes in the eye may cause irritation and reversible local damage.			
<b>12. ECOLOGICAL INFORMATION</b>			
Large quantities of the product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.			
<b>13. DISPOSAL CONSIDERATIONS</b>			
Do not allow large quantities to enter the drains or water courses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made under the Control of Pollution & Environmental Protection Acts. Residues in emptied containers should be neutralised with decontaminant (see sect.6)			
<b>14. TRANSPORT INFORMATION</b>			
<b>15. REGULATORY INFORMATION</b>			
The product is classified and labelled for supply in accordance with the \Chemicals (Hazard Information & Packaging) Regulations as follows:			
<b>Classification:</b>	Xn - Harmful - Irritant to Skin		
<b>Contains</b>	2-HYDROXYETHYL METHACRYLATE DIBUTYLPHthalate		
<b>Risk Phrases</b>	43	May cause sensitisation by skin contact	
	36/37/38	Irritating to eyes, respiratory system and skin	
<b>Safety Phrases</b>	46	If swallowed seek medical advice immediately and show this container or label.	
	28	After contact with skin, wash immediately with plenty of water	
	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice	
	27	Take off immediately all contaminated clothing	
The information contained in this Safety Data Sheet does not constitute the user's own assessment of the workplace risks as required by other health & safety legislation.			
The provisions of the Health & Safety at work etc. Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.			
<b>16. OTHER INFORMATION</b>			
Text of any Risk Phrases listed in Section 8 - This relates to 100% concentration of an ingredient.			
	R36/37/38	Irritating to eyes and skin	
	R43	May cause sensitisation by skin contact	
Date of Origination 20/0496			
Date of last revision 20/04/98			
The information contained in this safety data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information & Packaging) Regulations. The product should not be used for purposes other than those shown in Section 1. without first referring to the supplier and obtaining written instructions. As the specific conditions of use of the product are outside of the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation complied with.			
The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation.. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.			
Further information and relevant advice can be found in:- The control of Substances Hazardous to Health Regulations 1988 (SI 1988: 1657)			
The manual Handling Operations Regulations 1992 (SI 1992: 2793). Storage of Flammable Liquids in Containers. HS (G) 51			
Storage of Packaged Dangerous Substances HS (G) 71. The Environmental Protection (duty of Care) Regulations 1992 (SI ^988: 2839)			
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