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|  | VITAL TECHNICAL SDN. BHD. |    | Issued date : 10/03/09 |
| | Material Safety Data Sheet | | Rev. No. : 4 |
| | VT-843 Threadlocker (Medium Strength - Blue) | | Revised date : 04/03/15 |
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1. Identification of the substance/preparation and of the company/undertaking

Product name : VT843 Threadlocker (Medium Strength - Blue)
Company : Vital Technical Sdn. Bhd.
 No. 93, Jalan Industri 3/3,
 Rawang Integrated Industrial Park,
 48000 Rawang, Selangor,
 Malaysia.

Telephone : +603 - 6092 0000
Fax : +603 - 6092 0099
Email : sales@vitaltechnical.com
Website : http://www.vitaltechnical.com

2. Hazard(s) identification

GHS Classification

| Health | Environmental | Physical |
|--|-------------------|----------|
| Eye Irrit. 2 Skin Irrit. 2 STOT SE 3 Skin Sens. 1 | Aquatic Chronic 3 | |



Signal word: Warning

Hazard Statement(s):

H315 Causes skin irritation.
H317 May cause allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

P261 Avoid breathing vapours.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.

3. Composition/Information on ingredients

| Chemical name | CAS No. | EINECS | % (w/w) | Toxicology Data |
|---------------------------|------------|-----------|---------|---|
| Polyglycol dimethacrylate | 25852-47-5 | 607-819-8 | 60 - 65 | LD₅₀ oral (rat): no data LD₅₀ dermal (rabbit): no data LC₅₀ inhalation: no data |
| Polyglycol dioctanoate | 18268-70-7 | 242-149-6 | 20 - 25 | LD₅₀ oral (rat): no data LD₅₀ dermal (rabbit): no data LC₅₀ inhalation: no data |
| Poly(vinyl acetate) | 9003-20-7 | - | 5 - 10 | LD₅₀ oral (rat): no data LD₅₀ dermal (rabbit): no data |

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| | | | | LC₅₀ inhalation: no data |
| Polyethylene | 9002-88-4 | - | 3 - 5 | LD₅₀ oral (rat): no data LD₅₀ dermal (rabbit): no data LC₅₀ inhalation: no data |
| Saccharin | 81-07-2 | 201-321-0 | 2 - 4 | LD₅₀ oral (rat): no data LD₅₀ dermal (rabbit): no data LC₅₀ inhalation: no data |
| Silica, amorphous, treated | 68909-20-6 | 272-697-1 | 1 - 3 | LD₅₀ oral (rat): no data LD₅₀ dermal (rabbit): no data LC₅₀ inhalation: no data |
| Cumene hydroperoxide | 80-15-9 | 201-254-7 | 1 - 3 | LD₅₀ oral (rat): 448.g mg/kg LD₅₀ dermal (rabbit): 116.2 mg/kg LC₅₀ inhalation: 274 ppm |
| 1-acetyl-2-phenylhydrazine | 114-83-0 | 204-055-3 | 0.1 - 1.0 | LD₅₀ oral (mouse): 270 mg/kg LD₅₀ dermal (rabbit): no data LC₅₀ inhalation: no data |
| Maleic acid | 110-16-7 | 203-742-5 | 0.1 - 1.0 | LD₅₀ oral (rat): 708 mg/kg LD₅₀ dermal (rabbit): >5000 mg/kg LC₅₀ inhalation: >720 mg/m ³ |

4. First-aid measures

Inhalation

Remove to fresh air, keep warm and at rest. Contact physician if discomfort persists.

Skin contact

Remove contaminated clothing. Rinse with copious amount of water. Get medical advice if skin irritation or a rash occurs. Do not use organic solvents for cleanup as they may dry or irritate the skin and act as a chemical absorption.

Eye contact

Contact lenses should be removed. Rinse with copious amount of water immediately for at least 15 minutes. Seek medical attention immediately.

Ingestion

Low toxicity. DO NOT induce vomiting. Stay calm. Seek medical attention immediately.

5. Fire-fighting measures

Suitable extinguishing media

Use dry chemical powder, foam, carbon dioxide.

Special fire fighting procedures

Keep up-wind to avoid fumes. Use self-contained breathing apparatus in confined areas.

Unusual fire/explosion hazards

None known.

Thermal decomposition products

Irritating organic vapors.

Protective measures in fire

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Person-related safety precautions

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

Measure for cleaning/collecting

Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust, etc). Dispose of contaminated material as waste according to item 13.

Additional information:

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Prevent spillage from entering drainage/sewer systems. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

7. Handling and storage

Handling

Ensure good ventilation during processing. Do not eat, drink or smoke while handling. Avoid contact with skin and eyes. Avoid breathing vapor. Wash thoroughly after handling.

Protection against fire/explosion

General rules of fire prevention should be observed.

Storage

Keep containers and syringes tightly closed and dry. Store in a well-ventilated area, protected from direct sunlight and heat, with temperature below 30 °C.

8. Exposure controls/personal protection

Industrial hygiene

Remove immediately all contaminated clothing. Do not inhale vapor. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke while using the product. Change clothing before leaving workplace and wash before reuse.

Hand protection

Suitable protective gloves like polyethylene are recommended. The breakthrough time of the selected glove must be greater than the intended use period.

Respiratory protection

Positive down draft exhaust ventilation should be provided to maintain vapor concentration below TLV. An organic respirator NIOSH-approved for organic vapors is recommended where local ventilation is not adequate.

Eye protection

Protective goggles/safety glasses.

9. Physical and chemical properties

- **Form** : Liquid
- **Color** : Blue
- **Odor** : Mild
- **Boiling temperature** : Not determined
- **Flash point** : >93 °C
- **Solubility in water** : Slightly soluble
- **Specific gravity** : 1.05
- **Vapor pressure** : 6 mm at 30 °C
- **Vapor density** : Not available

10. Stability and reactivity

Stability and reactivity

Stable when stored under recommended conditions and no reactive hazards known.

Conditions to avoid

Refer section 7.

Hazardous decomposition products

Phenolics, oxides of sulphur, oxides of carbon, oxides of nitrogen, and irritating organic vapors.

Hazardous polymerization

Will not occur.

Incompatible materials

Strong oxidizing agents, strong acids, copper iron, strong reducing agents and rust.

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11. Toxicology information

No specific oral, inhalation or dermal toxicology data is known for this product. Any toxicological data included in this section is based on the data associated with the components.

| Test | Results |
|-----------------------|-----------------------------|
| Oral Toxicity | Not classified |
| Dermal Toxicity | Not classified |
| Inhalation Toxicity | Not classified |
| Eye Irritation | Eye irritant, category 2 |
| Dermal Irritation | Skin irritant, category 2 |
| Skin Sensitization | Skin sensitizer, category 1 |
| Carcinogenicity | Not classified |
| Reproductive Toxicity | Not classified |

Additional notes on carcinogenicity

This product could contain trace residual quantities of cumene (CAS no.: 98-82-8). Cumene is classified by the IARC as a category 2B carcinogen (possibly carcinogenic to humans).

12. Ecological information

| | | |
|----------------------------------|---|--|
| Ecology toxicity | : | Harmful to aquatic life with long lasting effects. |
| Persistence/Degradability | : | No data available. |
| Bioaccumulative potential | : | No data available. |
| Mobility | : | No data available. |

13. Disposal information

Waste treatment methods - unused products

Should not be released into the environment. Classified as hazardous waste according to (national equivalent of EC-Dir. 91/689; disposal of toxic and hazardous waste). It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. Use a registered waste disposal company and supply accurate information about the nature of the hazard.

Waste disposal number: 08 04 09*

Waste treatment methods - contaminated packaging

Contaminated packaging is classified as hazardous waste. Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal. Fully drained containers which are drop- and scrape-free can be treated as industrial waste, and can possibly be recycled.

Waste disposal number: 15 01 10*

Preferred method of disposal includes incineration under controlled conditions in accordance with all local and national laws and regulations. The generation of waste should be avoided or minimized wherever possible.

Untreated material is not suitable for disposal. Waste, even in small quantities, should never be poured down into drains, sewers or watercourses. Waste must be disposed of in accordance with federal, state and local environmental control regulations. This material, when properly mixed and cured at the proper mix ratio, may be safely landfilled.

14. Transport information

Road transport (ADR)

Not regulated

Marine transport (IMDG)

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Not regulated

Air transport (IATA)

Not regulated

15. Regulatory information

Refer to section 2.

16. Other information

Definitions:

- **EINECS** : European Inventory of Existing Commercial Chemical Substances.
- **NLP** : No-Longer Polymers.
- **LD₅₀** : The minimum dose required for lethal effects in 50% of a given population of test specimens.
- **NIOSH** : National Institute for Occupational Safety and Health.

All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The details contained herein are based on our present state of knowledge and experience in characterizing our product with regard to any possible safety requirement. We do, however, pass them on without any warranty or property assurances.