Safety Data Sheet
acc. to OSHA HCS

Printing date 03/06/2019 *Reviewed on 02/28/2019*

1 Identification

- ***Product identifier***
  - ***Trade name:*** Tif-Lock Threadlocker-Blue
  - ***Part number:*** 8500, 8501, 8504, 8505
  - ***Application of the substance / the mixture*** Thread Locking
- ***Details of the supplier of the safety data sheet***
  - ***Manufacturer/Supplier:***

Tifco Industries, Inc
PO Box 40277
Houston, TX 77240
USA
Telephone: +1-281-571-6000
Email: tifco@tifco.com
Website: www.tifco.com

  - ***Information department:*** Product safety department
  - ***Emergency telephone number:***

United States: 1-800-424-9300
International: +1-703-527-3887

2 Hazard(s) identification

- ***Classification of the substance or mixture***


GHS08 Health hazard

Carc. 2	H351	Suspected of causing cancer.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.


GHS07

Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2A	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
STOT SE 3	H335	May cause respiratory irritation.

- ***Label elements***
  - ***GHS label elements*** The product is classified and labeled according to the Globally Harmonized System (GHS).
    - ***Hazard pictograms***


GHS07 GHS08

    - ***Signal word*** Warning
    - ***Hazard-determining components of labeling:***
2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate
methacrylic acid, monoester with propane-1,2-diol
dimethylbenzyl hydroperoxide
2'-phenylacetohydrazide
    - ***Hazard statements***
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
    - ***Precautionary statements***

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P264	Wash face, hands and any exposed skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.

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P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P280	Wear protective gloves.
P280	Wear eye protection / face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a poison center/doctor if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	Specific treatment (see on this label).
P337+P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- ***Classification system:***
  - ***NFPA ratings (scale 0 - 4)***

Health = 2
Fire = 1
Reactivity = 0

  - ***HMIS-ratings (scale 0 - 4)***

Health = *2
Fire = 1
Reactivity = 0

- ***Other hazards***
  - ***Results of PBT and vPvB assessment***
    - ***PBT:*** Not applicable.
    - ***vPvB:*** Not applicable.

3 Composition/information on ingredients

- ***Chemical characterization: Mixtures***
  - ***Description:*** Mixture of the substances listed below with nonhazardous additions.
  - ***Dangerous components:***

CAS: 25852-47-5	2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	50 – 59%
CAS: 27813-02-1	methacrylic acid, monoester with propane-1,2-diol Eye Irrit. 2A, H319; Skin Sens. 1, H317	5 – 9%
CAS: 67762-90-7	Amorphous Silica Combustible Dust	1 – 4%
CAS: 80-15-9	dimethylbenzyl hydroperoxide Self-react. F, H242; Org. Perox. E, H242; Acute Tox. 3, H311; STOT RE 2, H373; Asp. Tox. 1, H304; Eye Dam. 1, H318; Acute Tox. 4, H302; STOT SE 3, H335; Flam. Liq. 4, H227	1 – 4%
CAS: 114-83-0	2'-phenylacetohydrazide Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	≤ 1%
CAS: 98-82-8	cumene Flam. Liq. 3, H226; Carc. 2, H351; Asp. Tox. 1, H304; Acute Tox. 4, H302; STOT SE 3, H335	≤ 1%

4 First-aid measures

- ***Description of first aid measures***
  - ***After inhalation:***
    In case of unconsciousness place patient stably in side position for transportation.
    Supply fresh air; consult doctor in case of complaints.
  - ***After skin contact:*** Immediately wash with water and soap and rinse thoroughly.
  - ***After eye contact:*** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - ***After swallowing:*** If symptoms persist consult doctor.
  - ***Information for doctor:***
    - ***Most important symptoms and effects, both acute and delayed*** No further relevant information available.
    - ***Indication of any immediate medical attention and special treatment needed***
      No further relevant information available.

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5 Fire-fighting measures

- ***Extinguishing media***
  - ***Suitable extinguishing agents:***
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
    CO2, sand, extinguishing powder. Do not use water.
  - ***For safety reasons unsuitable extinguishing agents:*** Water
- ***Special hazards arising from the substance or mixture*** No further relevant information available.
- ***Advice for firefighters***
  - ***Protective equipment:***
    Wear self-contained respiratory protective device.
    Wear fully protective suit.

6 Accidental release measures

- ***Personal precautions, protective equipment and emergency procedures***
  Wear protective equipment. Keep unprotected persons away.
  Ensure adequate ventilation
  Wear protective clothing.
- ***Environmental precautions:*** Do not allow to enter sewers/ surface or ground water.
- ***Methods and material for containment and cleaning up:***
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Ensure adequate ventilation.
  Do not flush with water or aqueous cleansing agents
  Dispose of the collected material according to regulations.
- ***Reference to other sections***
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- ***Handling:***
  - ***Precautions for safe handling***
    Ensure good ventilation/exhaustion at the workplace.
    Prevent formation of aerosols.
    No special precautions are necessary if used correctly.
  - ***Information about protection against explosions and fires:***
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
- ***Conditions for safe storage, including any incompatibilities***
  - ***Storage:***
    - ***Requirements to be met by storerooms and receptacles:*** No special requirements.
    - ***Information about storage in one common storage facility:*** Not required.
    - ***Further information about storage conditions:***
      Keep receptacle tightly sealed.
      Store in cool, dry conditions in well sealed receptacles.
- ***Specific end use(s)*** No further relevant information available.

8 Exposure controls/personal protection

- ***Additional information about design of technical systems:*** No further data; see item 7.
- ***Control parameters***
  - ***Components with limit values that require monitoring at the workplace:***
    The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
    At this time, the other constituents have no known exposure limits.

CAS: 80-15-9 dimethylbenzyl hydroperoxide	
WEEL	Long-term value: 6 mg/m³, 1 ppm Skin
CAS: 98-82-8 cumene	
PEL	Long-term value: 245 mg/m³, 50 ppm Skin
REL	Long-term value: 245 mg/m³, 50 ppm Skin
TLV	Long-term value: (246) NIC-0.5 mg/m³, (50) NIC-0.1 ppm NIC-A3

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- ***Additional information:*** The lists that were valid during the creation were used as basis.

- ***Exposure controls***
  - ***Personal protective equipment:***
    - ***General protective and hygienic measures:***
      Keep away from foodstuffs, beverages and feed.
      Immediately remove all soiled and contaminated clothing.
      Wash hands before breaks and at the end of work.
      Avoid contact with the eyes and skin.
    - ***Breathing equipment:***
      Not required.
      In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
    - ***Protection of hands:***

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
      - ***Material of gloves***
        The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
        Nitrile rubber, NBR
      - ***Penetration time of glove material***
        The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
    - ***Eye protection:***

Tightly sealed goggles

    - ***Body protection:*** Protective work clothing

9 Physical and chemical properties

- ***Information on basic physical and chemical properties***	
- ***General Information***	
- ***Appearance:***	
- ***Form:***	Liquid
- ***Color:***	Blue
- ***Odor:***	Characteristic
- ***Odor threshold:***	Not determined.
- ***pH-value:***	Not determined.
- ***Change in condition***	
- ***Melting point/Melting range:***	Undetermined.
- ***Boiling point/Boiling range:***	≥ 200 °C (≥ 392 °F)
- ***Flash point:***	95 °C (203 °F)
- ***Flammability (solid, gaseous):***	Not applicable.
- ***Decomposition temperature:***	Not determined.
- ***Auto igniting:***	Product is not selfigniting.
- ***Danger of explosion:***	Product does not present an explosion hazard.
- ***Explosion limits:***	
- ***Lower:***	Not determined.
- ***Upper:***	Not determined.
- ***Vapor pressure at 20 °C (68 °F):***	n.a. hPa
- ***Density at 20 °C (68 °F):***	~ 1.07 g/cm³ (~ 8.92915 lbs/gal)
- ***Relative density***	Not determined.
- ***Vapor density***	Not determined.
- ***Evaporation rate***	Not determined.

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- ***Solubility in / Miscibility with***
  - ***Water:*** Not miscible or difficult to mix.
- ***Partition coefficient (n-octanol/water):*** Not determined.
- ***Viscosity:***
  - ***Dynamic:*** Not determined.
  - ***Kinematic:*** Not determined.
- ***Solvent content:***
  - ***Organic solvents:*** 0.6 %
  - ***Water:*** 1.3 %
  - ***VOC content:*** 0.64 %
    ~ 6.8 g/l / ~ 0.06 lb/gal
  - ***Solids content:*** 86.5 %
- ***Other information*** No further relevant information available.

10 Stability and reactivity

- ***Reactivity*** No further relevant information available.
  - ***Chemical stability***
    - ***Thermal decomposition / conditions to be avoided:*** No decomposition if used according to specifications.
- ***Possibility of hazardous reactions*** No dangerous reactions known.
- ***Conditions to avoid*** No further relevant information available.
- ***Incompatible materials:*** No further relevant information available.
- ***Hazardous decomposition products:***
  Aldehyde
  Hydrocarbons

11 Toxicological information

- ***Information on toxicological effects***
  - ***Acute toxicity:***
    - ***LD/LC50 values that are relevant for classification:***

ATE (Acute Toxicity Estimate)		
Oral	LD50	5,991 mg/kg (rat)
Dermal	LD50	29,467 mg/kg (rat)
Inhalative	LC50/4 h	12,966 mg/l (rat)

CAS: 80-15-9 dimethylbenzyl hydroperoxide		
Oral	LD50	382 mg/kg (rat)
Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)
CAS: 114-83-0 2'-phenylacetohydrazide		
Oral	LD50	270 mg/kg (mouse)
CAS: 98-82-8 cumene		
Oral	LD50	1,400 mg/kg (rat)
Dermal	LD50	12,300 mg/kg (rabbit)
Inhalative	LC50/4 h	24.7 mg/l (mouse)

  - ***Primary irritant effect:***
    - ***on the skin:*** Irritant to skin and mucous membranes.
    - ***on the eye:*** Irritating effect.
  - ***Sensitization:*** Sensitization possible through skin contact.
- ***Additional toxicological information:***
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Irritant
  - ***Carcinogenic categories***
    - ***IARC (International Agency for Research on Cancer)***

CAS: 98-82-8	cumene	2B
CAS: 13463-67-7	titanium dioxide	2B
CAS: 111-76-2	2-butoxyethanol	3

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- ***NTP (National Toxicology Program)***		
CAS: 98-82-8	cumene	R
CAS: 130-15-4	1,4-naphthoquinone	R

- ***OSHA-Ca (Occupational Safety & Health Administration)***
None of the ingredients is listed.

12 Ecological information

- ***Toxicity***
  - ***Aquatic toxicity:*** No further relevant information available.
- ***Persistence and degradability*** No further relevant information available.
- ***Behavior in environmental systems:***
  - ***Bioaccumulative potential*** No further relevant information available.
  - ***Mobility in soil*** No further relevant information available.
- ***Additional ecological information:***
  - ***General notes:***
    Water hazard class 1 (Self-assessment): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- ***Results of PBT and vPvB assessment***
  - ***PBT:*** Not applicable.
  - ***vPvB:*** Not applicable.
- ***Other adverse effects*** No further relevant information available.

13 Disposal considerations

- ***Waste treatment methods***
  - ***Recommendation:*** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- ***Uncleaned packagings:***
  - ***Recommendation:*** Disposal must be made according to official regulations.

14 Transport information

- ***UN-Number***	
- ***DOT, ADN, IMDG, IATA***	not regulated
- ***UN proper shipping name***	
- ***DOT, ADN, IMDG, IATA***	not regulated
- ***Transport hazard class(es)***	
- ***DOT, ADN, IMDG, IATA***	
- ***Class***	not regulated
- ***Packing group***	
- ***DOT, IMDG, IATA***	not regulated
- ***Environmental hazards:***	
- ***Marine pollutant:***	No
- ***Special precautions for user***	Not applicable.
- ***Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code***	Not applicable.
- ***UN "Model Regulation":***	not regulated

* 15 Regulatory information

- ***Safety, health and environmental regulations/legislation specific for the substance or mixture***
  - ***Sara***

- ***Section 355 (extremely hazardous substances):***
None of the ingredients is listed.

- ***Section 313 (Specific toxic chemical listings):***	
CAS: 80-15-9	dimethylbenzyl hydroperoxide
CAS: 98-82-8	cumene
CAS: 111-76-2	2-butoxyethanol

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- ***TSCA (Toxic Substances Control Act):***

2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate
Tetraethylene glycol hexoate
methacrylic acid, monoester with propane-1,2-diol
Amorphous Silica
dimethylbenzyl hydroperoxide
Saccharin
propane-1,2-diol
2'-phenylacetohydrazide
cumene
2-Phenyl-2-propanol
titanium dioxide
tetrasodium ethylenediaminetetraacetate
N-isopropylhydroxylamine
1,4-naphthoquinone
Colorant
Alumina Trihydrate
2-Propanone, oxime
2,4,7,9-tetramethyldec-5-yne-4,7-diol
2-butoxyethanol
Deionized water

- ***TSCA new (21st Century Act): (Substances not listed)***

CAS: 25852-47-5	2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate
CAS: 114-83-0	2'-phenylacetohydrazide

- ***Hazardous Air Pollutants***

CAS: 98-82-8	cumene
CAS: 130-15-4	1,4-naphthoquinone

- ***Proposition 65***

- ***Chemicals known to cause cancer:***

CAS: 98-82-8	cumene

- ***Chemicals known to cause reproductive toxicity for females:***

None of the ingredients is listed.

- ***Chemicals known to cause reproductive toxicity for males:***

None of the ingredients is listed.

- ***Chemicals known to cause developmental toxicity:***

None of the ingredients is listed.

- ***Carcinogenic categories***

- ***EPA (Environmental Protection Agency)***

CAS: 98-82-8	cumene	D, CBD
CAS: 111-76-2	2-butoxyethanol	NL

- ***TLV (Threshold Limit Value established by ACGIH)***

CAS: 13463-67-7	titanium dioxide	A4
CAS: 111-76-2	2-butoxyethanol	A3

- ***NIOSH-Ca (National Institute for Occupational Safety and Health)***

CAS: 13463-67-7	titanium dioxide

- ***Chemical safety assessment:*** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- ***Department issuing SDS:*** ND Industries, Inc. - Safety, Health and Environmental Affaires
- ***Contact:*** Safety, Health and Environmental Affaires
- ***Date of preparation / last revision*** 03/06/2019 / 59
- ***Abbreviations and acronyms:***

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists

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EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 3: Flammable liquids – Category 3
Flam. Liq. 4: Flammable liquids – Category 4
Self-react. F: Self-reactive substances and mixtures – Type E/F
Org. Perox. E: Organic peroxides – Type E/F
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1

- **** Data compared to the previous version altered.***

- ***Disclaimer***

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