Printing date 09/16/2015 Reviewed on 09/16/2015

1 Identification

- Product identifier

- Trade name: Tif-Lock Threadlocker Gel-Red

- Part number: 8529, 8527

- Details of the supplier of the safety data sheet

- 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: 1-800-255-3924

2 Hazard(s) identification

- Classification of the substance or mixture



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1B H317 May cause an allergic skin reaction.

- Label elements

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

- Hazard pictograms



- Signal word Warning
- Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves.

P280 Wear eye protection / face protection.
P264 Wash thoroughly after handling.

P272 Contaminated work clothing must not be allowed out of the workplace.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

P363 Wash contaminated clothing before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

P302+P352 IF ÓN SKIN: Wash with plenty of water. P321 Specific treatment (see on this label).

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:

- NFPA ratings (scale 0 - 4)



Printing date 09/16/2015 Reviewed on 09/16/2015

Trade name: Tif-Lock Threadlocker Gel-Red

(Contd. of page 1)

- HMIS-ratings (scale 0 - 4)



- 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.

- Dangei	rous components:	
27813-02-1	Hydroxypropyl methacrylate	20-30%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319	
	Acrylic polymer	10-20%
	Skin Irrit. 2, H315	-
67762-90-7	Synthetic amorphous silica (fumed)	5-10%
	Skin Irrit. 2, H315	
	Coumarone indene resin	5-10%
	Skin Irrit. 2, H315	-
	Methacrylate monomer	1-5%
	Skin Irrit. 2, H315; Eye Irrit. 2B, H320	
128-44-9	Saccharin	1-5%
	Acute Tox. 4, H302; Combustible Dust	
80-15-9	Cumene hydroperoxide	1-5%
	Org. Perox. EF, H242; Acute Tox. 3, H331; STOT RE 2, H373; Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Flam. Liq. 4, H227	

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.

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.

- 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

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.

Dispose of the collected material according to regulations.

- Reference to other sections

See Section 7 for information on safe handling.

Printing date 09/16/2015 Reviewed on 09/16/2015

Trade name: Tif-Lock Threadlocker Gel-Red

(Contd. of page 2)

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: No special measures required.
- 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:

80-15-9 Cumene hydroperoxide

WEEL Long-term value: 6 mg/m³, 1 ppm

Skin

- 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.

- 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:** Fluid

Printing date 09/16/2015 Reviewed on 09/16/2015

Trade name: Tif-Lock Threadlocker Gel-Red

(Contd. of page 3)

	(60	niu. oi pag
- Color:	Red	
- Odor:	Characteristic	
- Odour 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.	
- Ignition temperature:		
- 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:	Not determined.	
- Density:	Not determined.	
 Relative density 	Not determined.	
- Vapour density	Not determined.	
- Evaporation rate	Not determined.	
- Solubility in / Miscibility with		
- Water:	Not miscible or difficult to mix.	
- Partition coefficient (n-octanol/wa	ater): Not determined.	
- Viscosity:		
- Dynamic:	Not determined.	
- Kinematic:	Not determined.	
- Solvent content:		
Organic solvents:	0.5 %	
- Water:	0.1 %	
- VOC content:	0.5 % 4.7 g/l / 0.04 lb/gl	
- Solids content:	70.0 %	
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:					
128-44-9	Sacchari	n				
Oral	LD50	1280 mg/kg (rat)				
80-15-9	80-15-9 Cumene hydroperoxide					
Oral	LD50	382 mg/kg (rat)				

Printing date 09/16/2015 Reviewed on 09/16/2015

Trade name: Tif-Lock Threadlocker Gel-Red

(Contd. of page 4) LD50 500 mg/kg (rat) Dermal Inhalative LC50/4 h 220 mg/l (rat)

- Primary irritant effect:
 - on the skin: Irritant to skin and mucous membranes.
 - on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

- Carcinogenic categories
- IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

- NTP (National Toxicology Program)

None of the ingredients is listed.

- 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 o and the IBC Code	f MARPOL73/78 Not applicable.			
- UN "Model Regulation":	not regulated			

Printing date 09/16/2015 Reviewed on 09/16/2015

Trade name: Tif-Lock Threadlocker Gel-Red

(Contd. of page 5)

15 Regulatory information

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

	- Section 355 (extremely hazardous substances):				
None of	None of the ingredients is listed.				
	- Section 313 (Specific toxic chemical listings):				
80-15-9	30-15-9 Cumene hydroperoxide				
	ethylene glycol				
- '	TSCA (Toxic Substances Control Act):				
Polyethy	Polyethylene glycol dimethacrylate				
Hydroxy	Hydroxypropyl methacrylate				
Synthetic	Synthetic amorphous silica (fumed)				
Sacchar	Saccharin				
Cumene	Cumene hydroperoxide				
Propyler	Propylene glycol				
2'-pheny	2'-phenylacetohydrazide				
ethylene	ethylene glycol				
1,4-naph	1,4-naphthoquinone				
Deionize	Deionized water				

- Proposition 65

- Chemicals known to cause cancer:

None of the ingredients is listed.

- 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:

ethylene glycol

- Carcinogenic categories

- EPA (Environmental Protection Agency)

None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)

ethylene glycol

A4

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

None of the ingredients is listed.

- 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 09/16/2015 / 7
 - 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

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 Sy

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 Flam. Liq. 4: Flammable liquids, Hazard Category 4

Org. Perox. EF: Organic Peroxides, Types E, F Acute Tox. 4: Acute toxicity, Hazard Category 4 Acute Tox. 3: Acute toxicity, Hazard Category 3 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Printing date 09/16/2015 Reviewed on 09/16/2015

Trade name: Tif-Lock Threadlocker Gel-Red

(Contd. of page 6)

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
Skin Sens. 1B: Sensitisation - Skin, Hazard Category 1B
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

- * Data compared to the previous version altered.

- Disclaimer

The information set forth is based on information that is believed to be accurate. No warranty, expressed or implied, is intended. The information is provided solely for your information and consideration and assumes no legal responsibility for use or reliance thereon. In the event of a discrepancy between the information on the non-English document and its English counterpart, the English version shall supersede.