SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Tireseal
PRODUCT IDENTIFIER CODE(S): 101101
PRODUCT RECOMMENDED/INTENDED USE: Tire Puncture Sealing Compound
MANUFACTURER/SUPPLIER: Texas Refinery Corp.
ADDRESS: 500 Airport Drive, Mansfield, TX 76063
GENERAL INFORMATION: 817-332-1161
24 HR. EMERGENCY PHONE NUMBER: CHEMTREC 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Weight %
Ethylene glycol	107-21-1	20-25
Diethylene glycol	111-46-6	1-2
Xanthan gum	11138-66-2	0.1-1.0
Methyl paraben	99-76-3	0.1-1.0
Sodium nitrite	7632-00-0	1-2
Polyethylene	9002-88-4	1-2
Proprietary Acid Dye	N/A	<1.0
Non-hazardous components or other components below reportable levels	N/A	70-75

*Any concentration shown as a range is to protect confidentiality or is due to batch variation.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4 FIRST AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN (or hair): Remove/take off any contaminated clothing and wash skin thoroughly with soap and plenty of water. Wash contaminated clothing before reuse.
IF SKIN IRRITATION OR RASH OCCURS: Get medical advice/attention.
IF SWALLOWED: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this product are swallowed, call a POISON CENTER or physician immediately.
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF EXPOSED OR CONCERNED: Get medical advice/attention if you feel unwell.

SECTION 5 FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Water spray, water fog, dry chemical, alcohol-resistant foam, carbon dioxide (CO_2).
UNSUITABLE EXTINGUISHING MEDIA: Straight streams of water.
SPECIAL FIREFIGHTING PROCEDURES: Water spray may be used to keep fire-exposed containers cool, protect personnel attempting to stop leak, and disperse vapors. Evacuate area. Do not release runoff from fire control methods to sewers or waterways.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

HAZARDOUS COMBUSTION PRODUCTS: Smoke, fumes, carbon oxides and unknown organic compounds.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Wear full protective clothing. Wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand mode or positive-pressure mode.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Use appropriate personal protective equipment. Avoid breathing vapors, mist or gas. Avoid contact with spilled material. Ensure adequate ventilation. Remove all sources of ignition. Use non-sparking tools and equipment.
PROTECTIVE EQUIPMENT: Standard work uniform. Impervious gloves. Safety glasses. Personnel should increase PPE level as deemed appropriate in any given situation.
EMERGENCY PROCEDURES
SMALL SPILLS: Contain and recover when possible. Collect in an appropriate container or absorb with an inert material (such as vermiculite or dry sand) and place into appropriate chemical waste disposal container(s). Do not use combustible materials such as sawdust for cleanup.
LARGE SPILLS:
Containment: Shut off source of leak if safe to do so. Dike far head of liquid spill for later disposal. Do not allow material to enter sewers or waterways.
Cleanup: Contain and recover when possible. Collect in appropriate container. Absorb residue with an inert material (such as vermiculite or dry sand) and place into appropriate chemical waste disposal container(s). Do not use combustible materials such as sawdust for cleanup.

SECTION 7 HANDLING AND STORAGE

HANDLING PRECAUTIONS: Avoid contact with eyes and skin. Avoid inhalation of vapor or mist. This product is not intended to be ingested. Do not take internally. Wash skin thoroughly after handling. Wash contaminated clothing before re-use. Discard contaminated shoes.
STORAGE: Keep container tightly closed when not in use. Store in a dry and well-ventilated place. Do not allow product to freeze. Keep away from oxidizing agents. Keep out of reach of children. Avoid release to the environment.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Controls should be such that adequate ventilation is provided.
VENTILATION: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred as it prevents contaminant dispersion into the workplace by controlling it at its source.
RESPIRATORY PROTECTION: Seek professional advice prior to respirator selection and use. Follow OSHA respirator guidelines (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (e.g. cleaning spills, reactor vessels or storage tanks), wear an SCBA. *Warning! Air purifying respirators do not protect workers from oxygen deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least medical certification, graining, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning and convenient, sanitary storage areas.
EYE PROTECTION: Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face protection guidelines (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.
SKIN PROTECTION: Wear chemically protective gloves, boots, aprons and gauntlets to prevent prolonged or repeated skin contact.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Make emergency eyewash stations, safety/quick drench showers and washing facilities available in workplace areas.
WORK HYGIENIC PRACTICES: Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material and especially before eating, drinking, smoking, using toilet facilities or applying cosmetics. Separate contaminate work clothes from street clothes. Launder clothing before reuse. Discard contaminated shoes and leather articles. Clean personal protective equipment.

EXPOSURE GUIDELINES:

Component	ACGIH TLV/STEL	OSHA PEL/STEL	NIOSH REL/IDLH
Ethylene Glycol (107-21-1)	NE	NE	NE
Diethylene Glycol (111-46-6)	NE	NE	NE
Xanthan Gum (11138-66-2)	NE	NE	NE
Methyl paraben (99-76-3)	NE	NE	NE
Sodium nitrite (7632-00-0)	TWA: 10 mg/m^3 (inhalable fraction) TWA: 3 mg/m^3 (Respirable fraction)	TWA: 15 mg/m^3 (Respirable fraction) TWA: 5 mg/m^3 (Respirable fraction)	-
Polyethylene (9002-88-4)	10 mg/m^3 (total dust) 3 mg/m^3 (respirable dust)	15 mg/m^3 (total dust) 5 mg/m^3 (respirable dust)	-

OTHER ADDITIONAL INFORMATION: Keep away from foodstuffs, beverages and feed.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE (Color and physical state): Pink gelatinous material
ODOR: Glycol odor
ODOR THRESHOLD: Not determined
pH: Not determined
MELTING POINT/FREEZING POINT: Not determined
BOILING POINT (^{O}F/C): 212/100 approximately
FLASH POINT (^{O}F/C): None
AUTOIGNITION TEMPERATURE: Not determined
DECOMPOSITION TEMPERATURE: Not determined
EVAPORATION RATE (Butyl Acetate =1): Not determined
FLAMMABILITY (solid, gas): Non-flammable. Non-combustible.
EXPLOSIVE PROPERTIES: Not explosive
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: N/A
VAPOR PRESSURE (mm Hg): Not determined
VAPOR DENSITY (Air=1): Not determined
SOLUBILITY (ies) in water: Appreciable
SPECIFIC GRAVITY (H_2O=1): 1.05
PARTITION COEFFICIENT (n-octanol/water): Not determined
VISCOSITY: Not determined

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: None under normal handling.
CHEMICAL STABILITY: This material is considered to be stable under normal conditions of use and storage.
INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizing agents, strong acids, strong bases, aldehydes.
CONDITIONS TO AVOID: None known
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon.
HAZARDOUS REACTION/ POLYMERIZATION: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Ethylene glycol: When ingested early symptoms may mimic alcohol inebriation and are followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary edema, hypocalcemic tetany and severe metabolic acidosis. Without treatment, death may occur. Victims who survive initial toxicity period usually develop renal failure along with brain and liver damage. Exposure to and/or consumption of alcohol may increase toxic effects.
ACUTE EFFECTS:
EYE CONTACT: May cause eye irritation.
SKIN CONTACT: May be harmful if absorbed through skin. May cause skin irritation.
INHALATION: May be harmful if inhaled. May cause respiratory tract irritation.
INGESTION: May be harmful if swallowed.

TARGET ORGAN EFFECTS: No data available.
CHRONIC EFFECTS: No data available.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with pre-existing skin disorders, eye problems or impaired liver, kidney or respiratory function may be more susceptible to the effects of this substance.
ACUTE TOXICITY VALUES: There is no data available on this product as a whole.
COMPONENT DATA:

Component	Oral LD_{50}	Dermal LD_{50}	Inhalation LC_{50}
Ethylene glycol (107-21-1)	4000 mg/kg (Rat)	10626 mg/kg (Rabbit)	No data available
Xanthan Gum (11138-66-2)	45000 mg/kg (Rat) 20000 mg/kg (Mouse)	-	-
Methyl paraben (99-76-3)	2.1 mg/kg (Rat)	-	-
Sodium nitrite (7632-00-0)	175 mg/kg (Mouse) 85 mg/kg (Rat)	-	-
Polyethylene (9002-88-4)	>3 g/kg (Rat) 5 g/kg (Mouse)	-	-

CARCINOGENICITY: IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: No carcinogenic components identified.
U.S. National Toxicology Program (NTP) Report on Carcinogens: No carcinogenic components identified.
U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): No carcinogenic components identified.
REPRODUCTIVE TOXICITY: Overexposure to ethylene glycol may cause reproductive disorder(s) based on tests with laboratory animals.
MUTAGENICITY: Sodium nitrite has tested positive in mammalian and non-mammalian in vitro assays.
Proprietary Acid Dye: In vitro mutagen in animal tests.
TERATOGENICITY: Laboratory experiments of ethylene glycol have shown teratogenic effects. In reproductive studies, after female mice were fed sodium nitrite there was an increased number of fetal deaths.
SENSITIZATION: Not expected to be a sensitizer.
SINGLE TARGET ORGAN TOXICITY (Single Exposure): No data available.
SINGLE TARGET ORGAN TOXICITY (Repeated Exposure): No data available.
ASPIRATION HAZARD: No data available.
OTHER ADDITIONAL INFORMATION: Sodium nitrite is toxic by ingestion causing a reduction in oxygen carrying blood cells (methemoglobinemia), reduced blood pressure and cardiac effects.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY: There is no data available for this product as a whole.
COMPONENT DATA:

Component	Fish	Invertebrates	Algae
Ethylene glycol (107-21-1)	LC_{50}-Onchorhynchus mykiss (Rainbow trout): 18,500 mg/L;96H LC_{50}-Leuciscus idus (Golden orfe): >10000 mg/L;48H NOEC-Pimephales promelas (Fathead minnow): 32000 mg/L;7d NOEC-Pimephales promelas (Fathead minnow): 74000 mg/L;24H	NOEC- Daphnia: 24000 mg/L;48H LC_{50}-Daphnia magna (Water flea): 41000 mg/L;48H	-
Xanthan Gum (11138-66-2)	LC_{50}= 420 mg/L;96H (Oncorhyncus mykiss (Rainbow trout)) LC_{50}= 460-480 mg/L;96H (Leuciscus idus (Golden orfe))	EC_{50}= 404 mg/L;48H (Daphnia magna (water flea))	EC_{50}= >100 mg/L;72H (Pseudokirchneriella subcapitata (green algae))
Methyl paraben (99-76-3)	LC_{50} (Fish)= 60 mg/L;96H (Oryzias (orange-red killfish))	EC_{50} (Daphnia magna) = 36 mg/L;48H	EC_{50} (Pseudokirchneriella subcapitata) = 91 mg/L;72H
Sodium nitrite (7632-00-0)	LC_{50} (Fish)= 7.7 mg/L;96H	LC_{50} (Daphnia)= 12.5 mg/L;48H	-

ENVIRONMENTAL FATE: There is no data available on this product as a whole.
Ethylene glycol: when released into the soil, this material is expected to leach into groundwater and is not expected to evaporate significantly. When released into the water, this material is expected to readily biodegrade, and is expected to have a half-life of 1 and 10 days. When released into the air, this material is expected to be readily biodegraded, and is expected to have a half-life between 1 and 10 days.
Xanthan Gum: Biodegradation: 78%, Exposure time: 28d, Method: OECD Test Guideline 301F, Remarks: Readily biodegradable

Methyl paraben: Readily biodegradable. BOD (% of ThOD): 94% ThOD
Sodium nitrite: Harmful to aquatic organisms, contains runoff. Harmful to aquatic life in very low concentrations.
Polyethylene: This material is generally considered to be essentially non-biodegradable.
BIOACCUMULATIVE POTENTIAL: There is no data available on this product as a whole.
Ethylene glycol: Does not bioaccumulate.
Xanthan Gum: Partition coefficient (n-octanol/water): No data available. The product is miscible in water and readily biodegradable in both soil and water. Accumulation is not expected.
Methyl paraben: Log Pow: 1.96
SOIL MOBILITY: No specific data available.
OTHER ADVERSE ENVIRONMENTAL EFFECTS: No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

RECOMMENDED DISPOSAL METHODS: Any product that cannot be saved for recovery or recycling should be disposed of in an approved waste facility in accordance with all local/state/national/international regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING DESCRIPTION: Not regulated
INTERNATIONAL MARITIME ORGANIZATION (IMDG) SHIPPING DESCRIPTION: Not regulated
FREIGHT CLASSIFICATION: Tire Puncture Sealing Compound (NMFC 50317 CLASS 70)

SECTION 15 REGULATORY INFORMATION

US FEDERAL REGULATIONS:
TSCA (TOXIC SUBSTANCES CONTROL ACT): All components of this product are either listed or exempted from the TSCA inventory.
CERCLA (COMPREHENSIVE RESPONSE COMPENSATION AND LIABILITY ACT): Spills of this product over the RQ (Reportable Quantity) must be reported to the National Response Center. The RQ for Ethylene Glycol (CAS# 107-21-1) is 5,000 lbs. Spills must be evaluated to calculate the total amount of Ethylene Glycol released. Report spills as required under Federal, State and local regulations. Sodium nitrite (CAS# 7632-00-0), final RQ= 100 pounds (45.4 kg).
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A):
Sodium Nitrite (CAS# 7632-00-0)
311/312 HAZARD CATEGORIES: N/A
313 REPORTABLE INGREDIENTS: Ethylene Glycol (CAS# 107-21-1), Sodium Nitrite (CAS# 7632-00-0)
CLEAN WATER ACT (CWA): None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
CLEAN AIR ACT (CAA): CAS Number 107-21-1 (Ethylene Glycol) is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this product is not hazardous according to 29 CFR 1910.1200.
STATE REGULATIONS:
California: This product contains the following chemicals known to the State of California to cause cancer or developmental effects:
Ethylene glycol (CAS# 107-21-1), developmental, Listed: June 19, 2015
Right-to-Know Lists:

Component	Massachusetts	Pennsylvania	New Jersey	Florida	Minnesota	Illinois	Rhode Island
Ethylene Glycol	X	X	X	X	X	X	X
Sodium nitrite	X	X	X				

INTERNATIONAL REGULATIONS:

Component	Australia AICS	Canada DSL/NDSL	China IECSC	Japan ENCS	Korea KECL	Europe EINECS	New Zealand	Philippines PICCS
Ethylene glycol	X	X	X	X	X	X	X	X
Xanthan Gum	X	X	X	X	X	X	X	X
Sodium nitrite		X				X		

SECTION 16 OTHER INFORMATION

REVISION INDICATOR: New SDS compliant with GHS AND OSHA.
DATE OF REVISION: 04/09/2018
SUPERSEDES: 04/28/2017

DISCLAIMER: THIS INFORMATION IS BEING SUPPLIED TO YOU UNDER OSHA "RIGHT TO KNOW" REGULATION 29 CFR 1910.1200 AND IS OFFERED IN GOOD FAITH. THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE TRUE AND ACCURATE TO THE BEST OF OUR KNOWLEDGE. TEXAS REFINERY CORP. MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THIS DATE, THE HAZARDS CONNECTED WITH THE USE OF THE MATERIAL, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. TEXAS REFINERY CORP. MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE SAFE USE OF THIS MATERIAL IN YOUR PROCESS OR IN COMBINATION WITH OTHER SUBSTANCES. TEXAS REFINERY CORP. ASSUMES NO RESPONSIBILITY FOR DAMAGE OR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.