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1 Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name: LEAK LOCK

- Article number: 10001, 10004, 10016, 10128

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance / the preparation Pipe joint sealant, Gasket seal, Threadlocker

· 1.3 Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

Highside Chemicals, Inc. 11114 Reichold Road Gulfport, MS 39503

Phone: (228) 896-9220

· Further information obtainable from: Product Safety Department

· 1.4 Emergency telephone number:

ChemTel Inc.

(800)255-3924, +1 (813)248-0585

2 Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



F; Highly flammable

R11: Highly flammable.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

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Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

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· Hazard pictograms



- · Signal word Danger
- · Hazard-determining components of labelling:

titanium dioxide

· Hazard statements

H225 Highly flammable liquid and vapour.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children. P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required. P240 Ground/bond container and receiving equipment.

P233 Keep container tightly closed. P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse

skin with water/shower.

P308+P313 IF exposed or concerned: Get medical advice/attention. P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P405 Store locked up.

P403+P235 Store in a well-ventilated place. Keep cool.

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

regulations.

- · Hazard description:
- · WHMIS-symbols:

B2 - Flammable liquid

D2B - Toxic material causing other toxic effects



· NFPA ratings (scale 0 - 4)



Health = 2 Fire = 3 Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

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*2 Health = *2 3 Fire = 3

* - Indicates a long term health hazard from repeated or prolonged exposures.

· HMIS Long Term Health Hazard Substances 64-17-5 ethanol 13463-67-7 titanium dioxide

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

3 Composition/information on ingredients

- · 3.2 Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 64-17-5 EINECS: 200-578-6	ethanol F R11	25-50%
Index number: 603-002-00-5	♦ Flam. Liq. 2, H225	
CAS: 13463-67-7 EINECS: 236-675-5	titanium dioxide Xn R20-40 Carc. Cat. 3 Carc. 2, H351 Acute Tox. 4, H332	< 10%
CAS: 57-55-6 EINECS: 200-338-0	Propylene Glycol substance with a Community workplace exposure limit	< 10%

· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- · 4.1 Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Clean with water and soap.

If skin irritation continues, consult a doctor.

· After eve contact:

Rinse opened eye for several minutes under running water.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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· After swallowing:

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Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

· 4.2 Most important symptoms and effects, both acute and delayed

Dizziness

Gastric or intestinal disorders

- · Hazards No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with added, activated carbon.

Monitor circulation, possible shock treatment.

Medical supervision for at least 48 hours.

5 Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: None.
- · 5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

- · 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information Cool endangered receptacles with water spray.

6 Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

Protect from heat.

- 6.2 Environmental precautions: Dilute with plenty of water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

· 6.4 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.

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7 Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Flammable gas-air mixtures may form in empty receptacles.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Provide ventilation for receptacles.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Keep container tightly sealed.

Store receptacle in a well ventilated area.

· 7.3 Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters

· Ingredients v	· Ingredients with limit values that require monitoring at the workplace:				
64-17-5 ethai	nol				
PEL (USA)	1900 mg/m³, 1000 ppm				
REL (USA)	1900 mg/m³, 1000 ppm				
TLV (USA)	Short-term value: 1880 mg/m³, 1000 ppm				
EL (Canada)	Short-term value: 1000 ppm				
EV (Canada)	1,900 mg/m³, 1,000 ppm				
57-55-6 Prop	ylene Glycol				
WEEL (USA)	10 mg/m ³				
EV (Canada)	155* 10** mg/m³, 50* ppm *vapour and aerosol;**aerosol only				

- · **DNELs** No further relevant information available.
- · PNECs No further relevant information available.
- · Additional information: The lists valid during the making were used as basis.

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- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale dust / smoke / mist.

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device when aerosol or mist is formed.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Sensibilization by the components in the glove materials is possible.

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.

· For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

· Eye protection:

Contact lenses should not be worn.



Safety glasses with side shields or face shield strongly suggested.

- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment No special requirements.
- · Risk management measures

See Section 7 for additional information.

No special requirements.

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9 Physical and chemical properties				
9.1 Information on basic physical and chemical properties General Information				
Appearance: Form: Colour: Odour: Odour threshold:	Pourable paste Blue or Gray Alcohol-like Not determined.			
· pH-value:	Not determined.			
Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. 172 °F / 78 °C			
· Flash point:	61 °F / 16 °C			
· Flammability (solid, gaseous):	Not applicable.			
· Ignition temperature:	797 °F / 425 °C			
· Decomposition temperature:	Not determined.			
· Self-igniting:	Product is not self-igniting.			
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.			
· Explosion limits: Lower: Upper:	3,5 Vol % 15,0 Vol %			
· Vapour pressure at 20 °C:	59 hPa			
 Density at 20 °C: Relative density Vapour density Evaporation rate 	1,3 g/cm ³ Not determined. Not determined. Not determined.			
· Solubility in / Miscibility with water:	Fully miscible.			
· Partition coefficient (n-octanol/water): Not determined.			
Viscosity: Dynamic: Kinematic: 9.2 Other information	Not determined. Not determined. No further relevant information available.			

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10 Stability and reactivity

- · 10.1 Reactivity
- 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· 10.3 Possibility of hazardous reactions

Flammable.

Reacts with oxidizing agents.

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.

Used empty containers may contain product gases which form explosive mixtures with air.

Reacts with peroxides and other radical forming substances.

· 10.4 Conditions to avoid

Keep ignition sources away - Do not smoke.

Store away from oxidizing agents.

- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:

Toxic metal oxide smoke

Hydrocarbons

Carbon monoxide and carbon dioxide

11 Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:

Addic tox					
· LD/LC50 v	· LD/LC50 values relevant for classification:				
13463-67-	13463-67-7 titanium dioxide				
Oral	LD50	>20000 mg/kg (rat)			
Dermal	LD50	>10000 mg/kg (rabbit)			
Inhalative	LC50/4 h	>6,82 mg/l (rat)			
57-55-6 Pi	57-55-6 Propylene Glycol				
Oral	LD50	20000 mg/kg (rat)			
Dermal	LD50	20800 mg/kg (rabbit)			
64-17-5 et	64-17-5 ethanol				
Oral	LD50	7060 mg/kg (rat)			
Inhalative	LC50/4 h	20000 mg/l (rat)			

- · Primary irritant effect:
- · on the skin: Slight irritant effect on skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: Sensitizing effect by skin contact is possible by prolonged exposure.
- · Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

· Repeated dose toxicity Repeated exposures may result in skin and/or respiratory sensitivity.

12 Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: The product contains materials that are harmful to the environment.
- 12.2 Persistence and degradability The product is partly biodegradale. Significant residuals remain.
- 12.3 Bioaccumulative potential May be accumulated in organism
- 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

This statement was deduced from the properties of the single components.

Avoid transfer into the environment.

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

Water hazard class 1 (German Regulation) (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.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB:** Not applicable.
- 12.6 Other adverse effects No further relevant information available.

13 Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

- · 14.1 UN-Number
- · DOT. ADR. IMDG. IATA

UN1133

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	(Contd. of pa	age 9)
· 14.2 UN proper shipping name · DOT, ADR, IMDG, IATA	Adhesives	
· 14.3 Transport hazard class(es)		
· DOT		
PLANAMENT COUNTY		
· Class	3 Flammable liquids.	
· Label	3	
· ADR		
· Class	3 (F1) Flammable liquids.	
· Label	3 	
· IMDG, IATA		
· Class	3 Flammable liquids.	
· Label	3	
· 14.4 Packing group · DOT, ADR, IMDG, IATA	II	
 14.5 Environmental hazards: Marine pollutant: 	No	
· 14.6 Special precautions for user	Warning: Flammable liquids.	
· Danger code (Kemler):	33	
· EMS Number:	F-E,S-D	
· 14.7 Transport in bulk according to Annex	x II of	
MARPOL73/78 and the IBC Code	Not applicable.	
· Transport/Additional information:		
· ADR		
· Limited quantities (LQ)	5L	
Transport category Tunnel restriction code	2 D/E	
· UN "Model Regulation":	UN1133, ADHESIVES, 3, II	
· Oiv Woder Regulation :	UNITION, AUTIEOIVEO, N, II	

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15 Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California):
- · Chemicals known to cause cancer:

Reference to Titanium Dioxide is based on unbound respirable particles and is not generally applicable to product as supplied.

13463-67-7 titanium dioxide

· 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:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 ethanol

- · Carcinogenic Categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

13463-67-7 titanium dioxide

· TLV (Threshold Limit Value established by ACGIH)

13463-67-7 titanium dioxide A4
64-17-5 ethanol A3

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

13463-67-7 titanium dioxide

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

- · Canada
- · Canadian Domestic Substances List (DSL)

All ingredients are listed.

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· Canadian Ingredient Disclosure list (limit 0.1%)

64-17-5 ethanol

· Canadian Ingredient Disclosure list (limit 1%)

57-55-6 Propylene Glycol

• 15.2 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.

Relevant phrases

H225 Highly flammable liquid and vapour.

H332 Harmful if inhaled.

H351 Suspected of causing cancer.

R11 Highly flammable.

R20 Harmful by inhalation.

R40 Limited evidence of a carcinogenic effect.

· 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

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Sources

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