Printing date 25.03.2014

Revision: 30.09.2018

1 Identification of the substance/mixture and of the company/undertaking	
· 1.1 Product identifier	
 Trade name: <u>TXV & Reversing Valve Installation Kit</u> 	
 Article number: 32100 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available. 	
 Application of the substance / the mixture Coating, Cold metal bonding 	
 1.3 Details of the supplier of the Safety Data Sheet Manufacturer/Supplier: Highside Chemicals, Inc. 11114 Reichold Road Gulfport, MS 39503 USA Phone: (228) 896-9220 	
• 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 	
Acute Tox. 4 H302 Harmful if swallowed.	
Skin Irrit. 2 H315 Causes skin irritation.	
Eye Irrit. 2 H319 Causes serious eye irritation.	
Skin Sens. 1 H317 May cause an allergic skin reaction.	
STOT SE 3 H335 May cause respiratory irritation.	_
Classification according to Directive 67/548/EEC or Directive 1999/45/EC Xi; Irritant	
R36/37/38: Irritating to eyes, respiratory system and skin.	
Xi; Sensitising	-
 R43: May cause sensitisation by skin contact. 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. 	0
 Classification system: The classification is according to the latest editions of the EU-lists, and extended by company an literature data. 	nc
The classification is in accordance with the latest editions of international substances lists, and supplemented by information from technical literature and by information provided by the company. (Contd. on page	

Printing date 25.03.2014

Revision: 30.09.2018

Trade name: TXV & Reversing Valve Installation Kit

(Contd. of page 1) · 2.2 Label elements · Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation. · Hazard pictograms GHS07 · Signal word Warning · Hazard-determining components of labelling: methyl acrylate Poly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]mequinol · Hazard statements H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation. · Precautionary statements Wear protective gloves / eye protection. P280 P264 Wash thoroughly after handling. Avoid breathing mist/vapours/spray. P261 P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P302+P352 IF ON SKIN: Wash with plenty of soap and water. Dispose of contents/container in accordance with local/regional/national/international P501 regulations. · Hazard description: · WHMIS-symbols: D2B - Toxic material causing other toxic effects NFPA ratings (scale 0 - 4) Health = 1Fire = 1Reactivity = 0· HMIS-ratings (scale 0 - 4) HEALTH Health = *1 1 Fire = 1 FIRE **REACTIVITY** Reactivity = 0 (Contd. on page 3)

Printing date 25.03.2014

Revision: 30.09.2018

Trade name: TXV & Reversing Valve Installation Kit

(Contd. of page 2)

· HMIS Long Term Health Hazard Substances

None of the ingredients is listed.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

· vPvB: Not applicable.

3 Composition/informati	on on ingredients	
 3.2 Mixtures Description: Mixture of subs 	tances listed below with nonhazardous additions.	
· Dangerous components:		
	Poly(oxy-1,2-ethanediyl), .alpha(2-methyl-1-oxo-2-propenyl)- .omega[(2-methyl-1-oxo-2-propenyl)oxy]-	50-100%
CAS: 96-33-3 EINECS: 202-500-6 Index number: 607-034-00-0	 methyl acrylate Xn R20/21/22; Xi R36/37/38; Xi R43; F R11 Flam. Liq. 2, H225 Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335 	5-15%
CAS: 80-15-9 EINECS: 201-254-7 Index number: 617-002-00-8	 , -dimethylbenzyl hydroperoxide T R23; C R34; Xn R21/22-48/20/22; O R7; N R51/53 Org. Perox. EF, H242 Acute Tox. 3, H331 STOT RE 2, H373 Skin Corr. 1B, H314 Aquatic Chronic 2, H411 Acute Tox. 4, H302; Acute Tox. 4, H312 	<u>≤</u> 2,5%
CAS: 150-76-5 EINECS: 205-769-8 Index number: 604-044-00-7	mequinol	≤ 2,5%
	the wording of the listed risk phrases refer to section 16.	1

4 First aid measures

· 4.1 Description of first aid measures · General information: Immediately remove any clothing soiled by the product. Take affected persons out into the fresh air. · After inhalation: Supply fresh air; consult doctor in case of complaints. (Contd. on page 4)

GHS

Printing date 25.03.2014

Revision: 30.09.2018

(Contd. of page 3)

Trade name: TXV & Reversing Valve Installation Kit
Provide oxygen treatment if affected person has difficulty breathing.
In case of irregular breathing or respiratory arrest provide artificial respiration.
After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· After eye contact:
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing:
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
Headache
Allergic reactions
Irritant to skin and mucous membranes.
Irritant to eyes.
Breathing difficulty

Dizziness

Nausea

- Hazards Danger of impaired breathing.
- 4.3 Indication of any immediate medical attention and special treatment needed Treat skin and mucous membrane with antihistamine and corticoid preparations. If necessary oxygen respiration treatment. In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

5 Firefighting measures

· 5.1 Extinguishing media Suitable extinguishing agents: Carbon dioxide Fire-extinguishing powder Foam Water haze or fog · For safety reasons unsuitable extinguishing agents: Water with full jet Water spray · 5.2 Special hazards arising from the substance or mixture Formation of toxic gases is possible during heating or in case of fire. · 5.3 Advice for firefighters · Protective equipment: Wear self-contained respiratory protective device. Wear fully protective suit. · Additional information Cool endangered receptacles with water fog or haze.

(Contd. on page 5)

Printing date 25.03.2014

Revision: 30.09.2018

Trade name: TXV & Reversing Valve Installation Kit

(Contd. of page 4)

6 Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Use respiratory protective device against the effects of fumes/dust/aerosol.
 Wear protective equipment. Keep unprotected persons away.
 Ensure adequate ventilation
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Send for recovery or disposal in suitable receptacles. 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.

7 Handling and storage

- **7.1 Precautions for safe handling** Use only in well ventilated areas. Prevent formation of aerosols.
- Information about fire and explosion protection: Keep ignition sources away - Do not smoke. When heated the product forms flammable fumes.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Avoid storage near extreme heat, ignition sources or open flame.
- Information about storage in one common storage facility: Store away from foodstuffs.
- Do not store together with oxidizing and acidic materials.
- Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- 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	with limit values that require monitoring at the workplace:	
96-33-3 meth	nyl acrylate	
IOELV (EU)	Short-term value: 36 mg/m ³ , 10 ppm	
	Long-term value: 18 mg/m ³ , 5 ppm	
	(Contd. on page	e 6)

Printing date 25.03.2014

Revision: 30.09.2018

Trade name: TXV & Reversing Valve Installation Kit

PEL (USA)	(Contd. of page 5) Long-term value: 35 mg/m ³ , 10 ppm
	Skin
REL (USA)	Long-term value: 35 mg/m³, 10 ppm Skin
TLV (USA)	Long-term value: 7 mg/m³, 2 ppm Skin; (SEN) NIC-DSEN
EL (Canada)	Long-term value: 2 ppm Skin; S
EV (Canada)	Long-term value: 2 ppm Skin
80-15-9 , -0	dimethylbenzyl hydroperoxide
WEEL (USA)	Long-term value: 6 mg/m³, 1 ppm Skin
150-76-5 meg	uinol
REL (USA)	Long-term value: 5 mg/m ³
TLV (USA)	Long-term value: 5 mg/m ³
EL (Canada)	Long-term value: 5 mg/m ³
EV (Canada)	Long-term value: 5 mg/m ³
 8.2 Exposure Personal prote General prote The usual predicted pr	tective equipment: ective and hygienic measures: cautionary measures are to be adhered to when handling chemicals. om foodstuffs, beverages and feed. emove all soiled and contaminated clothing. before breaks and at the end of work. gases / fumes / aerosols. with the eyes and skin. proughly immediately after handling the product. brotection: under normal conditions of use. espiratory protective device in case of insufficient ventilation. espiratory protective device when aerosol or mist is formed. piratory protection may be advisable.
Prote The glove mat	ctive gloves terial has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of t degradation.	the glove material on consideration of the penetration times, rates of diffusion and the

(Contd. on page 7)

Printing date 25.03.2014

Revision: 30.09.2018

Trade name: TXV & Reversing Valve Installation Kit

(Contd. of page 6)

• 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.

• For the permanent contact gloves made of the following materials are suitable: Butyl rubber, BR

Nitrile rubber, NBR • Eve protection:

Contact lenses should not be worn.



Safety glasses

- **Body protection:** Protective work clothing
- Limitation and supervision of exposure into the environment No further relevant information available.
- **Risk management measures** See Section 7 for additional information. No further relevant information available.

9 Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- General Information

· Appearance:		
Form:	Liquid	
Colour:	Violet	
· Odour:	Sweetish	
· Odour threshold:	Not determined.	
· pH-value:	Not determined.	
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	Not Determined. Undetermined.	
· Flash point:	>392 °F / >200 °C	
· Flammability (solid, gaseous):	Not applicable.	
· Auto/Self-ignition temperature:	Not determined.	
· Decomposition temperature:	Not determined.	
· Self-igniting:	Product is not self-igniting.	
· Danger of explosion:	Product does not present an explosion hazard.	(Contd. on page 8)

Printing date 25.03.2014

Revision: 30.09.2018

Trade name: TXV & Reversing Valve Installation Kit (Contd. of page 7) · Explosion limits: Lower: 2,4 Vol % Upper: 18,6 Vol % · Vapour pressure at 20 °C: 89 hPa · Density at 20 °C: 1,05-1,10 g/cm3 · 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/water): Not determined. · Viscosity: **Dynamic:** Not determined. **Kinematic:** Not determined. 9.2 Other information No further relevant information available. 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 Reacts with catalysts, oxidizing agents and strong alkali. Toxic fumes may be released if heated above the decomposition point. Reacts with certain metals. · 10.4 Conditions to avoid Store away from oxidizing agents. Keep away from heat and direct sunlight. • 10.5 Incompatible materials: No further relevant information available. · 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide Ammonia Nitrogen oxides (NOx) Sulphur oxides (SOx) Hydrocarbons
- (Contd. on page 9)

Printing date 25.03.2014

Revision: 30.09.2018

Trade name: TXV & Reversing Valve Installation Kit

(Contd. of page 8)

11 Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity:

· LD/LC50 values relevant for classification:

96-33-3 methyl acrylate

Oral LD50 277 mg/kg (rat)

Dermal LD50 1243 mg/kg (rabbit)

80-15-9 , -dimethylbenzyl hydroperoxide

OralLD50382 mg/kg (rat)DermalLD50500 mg/kg (rat)InhalativeLC50/4h220 mg/l (rat)

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 the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant

Danger through skin adsorption.

Toxic and/or corrosive effects may be delayed up to 24 hours.

- Acute effects (acute toxicity, irritation and corrosivity): Danger through skin adsorption.
- · Sensitisation: Sensitization possible by skin contact.
- · 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** No further relevant information available.
- · 12.3 Bioaccumulative potential

Due to the distribution coefficient n-octanol/water a worth-mentioning accumulation in organisms is not expected.

- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark:

Due to mechanical actions of the product (e.g. agglutinations) damages may occur.

The product is oxygen-consuming. The declared action may be partly caused by lack of oxygen.

- · Additional ecological information:
- · General notes:

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Avoid transfer into the environment.

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

(Contd. on page 10)

Printing date 25.03.2014

Revision: 30.09.2018

(Contd. of page 9)

Trade name: TXV & Reversing Valve Installation Kit

· 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 disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. 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.

· Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

14 Transport information	
· 14.1 UN-Number	
· DOT, ADR, ADN, IMDG, IATA	Not Regulated
 14.2 UN proper shipping name 	
· DOT, ADR, ADN, IMDG, IATA	Not Regulated
 14.3 Transport hazard class(es) 	
· DOT, ADR, ADN, IMDG, IATA	
·Class	Not Regulated
· 14.4 Packing group	5
· DOT, ADR, IMDG, IATA	Not Regulated
 14.5 Environmental hazards: 	
 Marine pollutant: 	No
 14.6 Special precautions for user 	Not applicable.
· 14.7 Transport in bulk according to Anne	ex II of
MARPOL73/78 and the IBC Code	Not applicable.
 UN "Model Regulation": 	-

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.

(Contd. on page 11)

Printing date 25.03.2014

Revision: 30.09.2018

Trade name: TXV & Reversing Valve Installation Kit

	(Contd. of page 1
· Section 313 (Specific toxic chemical listings):	
96-33-3 methyl acrylate	
80-15-9 , -dimethylbenzyl hydroperoxide	
· TSCA (Toxic Substances Control Act):	
All ingredients are listed.	
· Proposition 65 (California):	
· 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:	
None of the ingredients is listed.	
· Carcinogenic Categories	
· EPA (Environmental Protection Agency)	
96-33-3 methyl acrylate	D
· IARC (International Agency for Research on Cancer)	· · · ·
96-33-3 methyl acrylate	3
TLV (Threshold Limit Value established by ACGIH)	·
96-33-3 methyl acrylate	A4
NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients is listed.	
· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	
· Canada	
· Canadian Domestic Substances List (DSL)	
All ingredients are listed.	
· Canadian Ingredient Disclosure list (limit 0.1%)	
None of the ingredients is listed.	
· Canadian Ingredient Disclosure list (limit 1%)	
96-33-3 methyl acrylate	
80-15-9 , -dimethylbenzyl hydroperoxide	
150-76-5 mequinol	
· Other regulations, limitations and prohibitive regulations	
· Substances of very high concern (SVHC) according to REACH, Article 57	

GHS

Printing date 25.03.2014

Revision: 30.09.2018

Trade name: TXV & Reversing Valve Installation Kit

(Contd. of page 11) • **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other in	formation
	mation is based on our present knowledge. However, this shall not constitute a guarantee for any roduct features and shall not establish a legally valid contractual relationship.
• Relevant H225 H242 H302 H312 H314 H315 H317 H319 H331 H332 H335 H373 H411	phrases Highly flammable liquid and vapour. Heating may cause a fire. Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic if inhaled. Harmful if inhaled. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.
R21/22 R22 R34 R36 R36/37/38 R43	 Highly flammable. Harmful by inhalation, in contact with skin and if swallowed. Harmful in contact with skin and if swallowed. Harmful if swallowed. Toxic by inhalation. Causes burns. Irritating to eyes. Irritating to eyes, respiratory system and skin. May cause sensitisation by skin contact. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May cause fire.
ADR: Acco International IMDG: Intern DOT: US De IATA: Intern GHS: Globa ACGIH: Am EINECS: Eu ELINCS: Eu CAS: Chemi NFPA: Natio HMIS: Haza WHMIS: Wo DNEL: Deriv PNEC: Pred	tions and acronyms: rd européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the l Carriage of Dangerous Goods by Road) hational Maritime Code for Dangerous Goods partment of Transportation ational Air Transport Association Ily Harmonized System of Classification and Labelling of Chemicals erican Conference of Governmental Industrial Hygienists iropean Inventory of Existing Commercial Chemical Substances ropean List of Notified Chemical Substances ical Abstracts Service (division of the American Chemical Society) onal Fire Protection Association (USA) rdous Materials Identification System (USA) orkplace Hazardous Materials Information System (Canada) red No-Effect Level (REACH) icced No-Effect Concentration (REACH) I concentration, 50 percent (Contd. on page 13)

Printing date 25.03.2014

Revision: 30.09.2018

(Contd. of page 12)

Trade name: TXV & Reversing Valve Installation Kit

LD50: Lethal dose, 50 percent Flam. Liq. 2: Flammable liquids, Hazard Category 2 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 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 2 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2 Sources
SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com