

SAFETY DATA SHEET (SDS) SAFETY KIT FOR CONVEYOR BELT REPAIR– FOURTHANE RED

Issued by : CENTRO DE DOCUMENTACIÓN RITA CHILE
Reviewed and approved by : DRA. LAURA BÖRGEL.

Valid period: September 2014 – September 2016

Section 1: Identification of mixture and supplier	
Mixture name	Safety kit for conveyor belt repair Fourthane Red.
Supplier / manufacturer / distributor	COMERCIALIZADORA FOURTHANE LTDA.
Product use	Conveyor belt repair.
Address	Guacolda 688, La Florida.
Telephone - Fax	56 02 24436031
Emergency phone number in Chile	+56 02 2777-1994 (Rita-Chile)
Emergency fax number in Chile	+56 02 2735-0478 (Rita-Chile)
E-Mail Address	ritachile@ritachile.cl
Phone number for the US and Canada	1-800-424-9300 CCN692931

Section 2: Mixture information

Safety kit for conveyor belt repair – Fourthane Red displays a wide range of safe handling of its components.

Chemical components:

a) Main components	<table border="0"> <tr> <td style="padding-left: 20px;">Name</td> <td style="text-align: right;">Volume/quantity</td> </tr> <tr> <td>1.- Solvent</td> <td style="text-align: right;">50cc</td> </tr> <tr> <td>2.- Primer (adherence promotor, without toluene)</td> <td style="text-align: right;">50cc</td> </tr> <tr> <td>3.- Catalyst</td> <td style="text-align: right;">60cc</td> </tr> <tr> <td>4.- Resin</td> <td style="text-align: right;">690g</td> </tr> </table>	Name	Volume/quantity	1.- Solvent	50cc	2.- Primer (adherence promotor, without toluene)	50cc	3.- Catalyst	60cc	4.- Resin	690g
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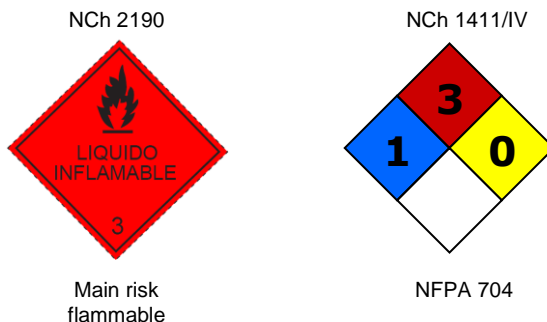
El producto: **Kit de Seguridad para Reparación de Correas Transportadoras – Fourthane Red** se encuentra inscrito en el centro de documentación de la
 Corporación RITA – CHILE.

Fono emergencias: 56 2 27771994 - www.ritachile.cl
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Section 3: Risk Identification

Mixture risks classification:

Fourthane Red safety kit delivers higher resistant for fire, water, electrostatic and hits, bringing lower dangerous properties of the mixture. The following classification is addressed only when the material is outside its container, in case of mishandling or accident.



a) Health risks based on Ethyl acetate

Accute overexposure effects (short term)	Overexposure to vapors of the product, or percutaneous absorption of significant amounts, as well as ingestion of the product, have a toxic effect on the central nervous system "Narcosis", characterized by headache, dizziness, nausea and loss of coordination.
Inhalation	The vapor is irritating to mucous membranes and upper respiratory tract (nose, throat, etc.) is narcotic in high concentrations (Narcosis).
Contact with skin	Liquid is mildly irritating to the skin, therefore, prolonged or repeated contact can result in drying of the skin and may cause dermatitis.
Contact with the eyes	Vaporized in high concentrations is severely irritating to the eyes. It can produce "Narcosis".
Ingestion/swallowing	Massive ingestion may cause irritation of the gastrointestinal tract. It can cause vomiting.
Chronic overexposure effects (long term)	For the amount contained in a Kit, no long-term effects are expected; only if prolonged and / or repeated exposure may cause dry skin may cause dermatitis.
Health conditions that would be aggravated on overexposure	For the amount contained in a Kit, no medical conditions, that may be aggravated by exposure to product, are expected. If pre-existing disorders or disorders of eyes, skin, respiratory and gastrointestinal tract, may be aggravated by exposure to this product. Individuals with chronic respiratory problems should not be exposed to prolonged contact with the product.

b) Environmental risks	In case of simultaneous spilling of 40 kits could cause indirect effects on aquatic environment given the oxygen reduction. Biodegradable product.
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c) Material risks	Highly flammable
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d) Specific risk	Must be handle with proper ventilation in case of confined areas
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Section 4: First aids

IN CASE OF ACCIDENTAL CONTACT WITH THE PRODUCT, PROCEED AS FOLLOWS:

Inhalation	If massive exposure through inhalation, remove the affected individual to a non-contaminated atmosphere with fresh air and provide oxygen to the victim if breathing is difficult, dizzy or unresponsive person. If rapid recovery does not occur obtain medical attention.
Contact with skin	Wash with soap and water, remove contaminated clothing. If irritation occurs seek medical attention. Wash clothing before reuse.
Contact with eyes	Rinse immediately with plenty of water while lifting the eyelids open for at least 15 minutes. GET MEDICAL ATTENTION IMMEDIATELY.
Ingestion/swallowing	IF SWALLOWED, DO NOT INDUCE VOMITING. Do not give liquids IF VICTIM IS UNCONSCIOUS OR VERY NUMB. Get victim's mouth with two sips of water rinse to remove taste from mouth if vomiting occurs spontaneously keep your head below hips to prevent aspiration. If rapid recovery does not occur obtain medical attention.
For attending doctor only	Prolonged or repeated exposure may cause dermatitis. In case of a prolonged and massive product Overexposure can cause depression of the central nervous system "Narcosis".

Section 5: Fire fighting measures

Specific risk considerations to control fire	Some product components have a very low flash point: then pour the absorbent material immediately about the product to avoid the displacement of vapors into the fire zone. Use of water spray when fighting fire may be inefficient.
Extinguishing agents	Foam, dry chemical or carbon dioxide. Water fog may be ineffective.
Fire fighting special procedures	If possible, keep the wind at our back, attack the fire as far as possible. I cool down containers exposed to fire.
Fire fighting personal protection equipment	Use breathing apparatus with full facepiece cylinders. Helmet with visor allows reflect heat. Safety boots
Dangerous materials generated on combustion	CO2 and CO if there is incomplete combustion. Carbon monoxide is highly toxic if inhaled, carbon dioxide in sufficient concentrations can act as an asphyxiant.

Section 6: Spillage and leakage control measures

Emergency measures when spillage	In case of massive spills, contain with absorbent inert material found inside each kit not reach watercourses, sewers or underground. Isolate the area and away possible sources of ignition. Evacuate the area, if necessary, any fire prevention.
Personal protection equipment to control spillage	In case of massive spills, vapor detector used to limit the approach radius and protection, wear protective eye-hand, not be exposed to vapors contact (fire hazard) Use self contained breathing apparatus, diving full chemical protection.
Personal precautions	Do not touch or walk through spilled material.
Considerations to avoid impact in the environment	Leaks from fire control or dilution water may cause pollution.
Cleaning method (Recovery – Neutralization)	For small spills, recover with inert absorbent material. In case of massive spills, recover pumps with explosion proof motor.
Waste elimination method	Waste can be disposed by incineration in a facility specially designed for it under current regulations.

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Secondary risk prevention notes	Most vapors are heavier than air, They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
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Section 7: Handling and storage

7.1 HANDLING

Measures (recomendations)	This product should be used in well ventilated areas, local forced ventilation may be required. Static electricity may accumulate and create a fire hazard so the equipment must be grounded.
Preventive measures	Take normal precautions for storing flammable well-ventilated areas with explosion proof lighting, with nearby equipment for fire fighting and avoid sources of ignition
Safety handling recomendations	Use goggles, neoprene glove, if conditions make it necessary to wear respiratory horn with filter for organic vapors.

7.2 STORAGE

Measures	Keep away from direct sunlight and other sources of heat or ignition. Store under current regulations.
Storing conditions	No smoking in storage areas. Keep container tightly closed and in a well ventilated place. Do not open the safety kit until use. Once opened store and not delete. Do not reuse

Recommended packing	Containers must be made out of metal.
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Section 8: Exposure control / personal protection

Exposure control measures	Use only the amount needed in the process. Keep containers closed. Store in open or natural or forced ventilation enclosures. Do not reuse leftover material.
Control parameters	CBC and renal function tests.
occupational exposure limits	<p>OSHA: Ethyl acetate Permissible Exposure Limit: 8 hours time weighted average 400 ppm.</p> <p>NIOSH: Ethyl acetate Recommended Exposure Limit: 10 hours time weighted average 400 ppm.</p> <p>ACGIH: Ethyl acetate Permissible Exposure Limit: 8 hours time weighted average 400 ppm</p> <p>D. S 594: Ethyl acetate Weighted allowable limit: 320 ppm or 1150 mg / m 3.</p>
Umbral odorífero	Information not available.
Biological standards	Dosage in blood and urine of solvents and their metabolites.
Radioactive permissible limits	Not apply, is not radioactive.
Respiratory protection	Respirator with organic vapor filters handling the product under normal use. In case of massive applications in confined spaces, where you can not force the ventilation of the area, use SCBA.
Sight and face protection	Safety glasses.
Skin and body protection	Neoprene gloves.
Feet protection	Safety shoes.
Other protection gear	Not required

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Higene measures, ventilation

Ventilation must be natural or forced.

Section 9: Chemical and physical properties

Chemical and physical properties	Ethyl acetate	Primer
State	Liquid	Liquid
At 25 °C state	Liquid	Liquid
Color	Transparent	Transparent
Odor	-	-
pH	-	Not apply
Specific temperatures and / or ranges	-	-
Decomposition temperature	-	-
Flashpoint	-3°C (closed cup Tagliabile)	25°F, -3°C (closed cup Tagliabile)
Ignition temperature	427 °C	-
Flammable	Inferior: Aprox. 2.2% (v/v) Superior: Aprox. 11.5% (v/v).	Inferior: Aprox. 2.5% (v) Superior: Aprox. 9% (v).
Vapor Pressure	97,3 hPa a 20° C	-
Vapor Density	Not available	Thicker tan air
Density	0,9 g/cm3	0.893 g/mL
Solubility in Water	Soluble	-
Octanol / water partition	Log Pow:0,73	-
corrosivity	-	-
Volatility Index	-	-
radioactivity	Not apply	Not apply
Speed of flame propagation	-	-
viscosity	-	-
Heat of combustion	-	-
Volatile by Volume	-	98.00%

Section 10: Stabilidad and reactivity

Stability	Stable under normal conditions of use. Reacts with strong oxidizing be oxidized to acids and reduced to the corresponding alcohol (IPA
Conditions that must be avoided	Direct Heat, flames and sparks, accumulation of vapors.
Incompatibility (avoid these materials)	Avoid mixing with strong oxidizing materials. It can form explosive mixtures with them.
Decomposing dangerous output material	It decomposes emitting acrid smoke and irritating.
Combustion dangerous output materials	Acrid smoke and irritating.
Dangerous polimerization	Not produced

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Section 11: Toxicological Information

SHORT TERM TOXICITY SOLVENT –ETHYL ACETATE

Oral toxicitty (accute)	Test in animals: Acetato de etilo: LD 50 oral –rat-5.620 mg/ Kg LC 50 inhal-mouse- 2h- 45.000 mg/m3 DL 50 dermal-rabbit- >18.000 mg /Kg
Inhalling toxicity (accute)	Airway irritation, dizziness and loss of strength.
Dermal toxicity	Irritation, dryness and cracking of the skin.

SHORT TERM TOXICITY- PRIMER

Oral toxicitty (accute)	Report in animals: LD 50 Oral - rat- 5.620 mg per Kg LC 50 Inhalation – mouse- 200,00 mg/L DL50 Cutaneous - rabbit - > 18.000 mg / kg
Inhalling toxicity (accute)	Airway irritation, dizziness and loss of strength.
Dermal toxicity	Irritation, dryness and cracking of the skin.

LONG TERM TOXICITY (CHRONIC)-Ethyl acetate and Primer

Mutagenicity	Ethyl acetate and Primer are not classified as mutagenic according to USEPA IRIS.
Carcerigenous (IARC, EPA)	Ethyl acetate and Primer are not classified as carcinogens according to IARC.
Local or systemic effects	You can have systemic effects on metabolism and on the kidneys and liver by prolonged contact to high concentrations, but does not apply to the kit contain 50 mL volume of ethyl acetate and its margin of safety is high.
Allergen Sensitization	Eye irritation and dry skin.
Specific effects	Irritation, coughing, nausea.
Scientific experiments	Information not available.

Section12: ecological Information

instability	Stable under normal conditions of storage under.
Persistence / Degradability	Ethyl acetate and Primer are expected to be biodegrades quickly under aerobic and anaerobic conditions. 79% readily biodegradable ethyl acetate (OECD TG 301 D)
Bio-accumulation	There is no potential for bioaccumulation EPA for First and 3d for ethyl acetate with bioconcentration factor (BCF) 30
Effects on the environment	Only in case of large spills can be toxic to aquatic species and soil microorganisms.

ECOTOXICITY DATA	Ethyl acetate and Primer: According to EPA (Environmental Protection Agency of the United States), these compounds are unclassifiable as carcinogenic in animals. They are not in the list of endocrine disruptors. There are no studies of water pollution.
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Acute toxicity to fish	Ethyl acetate: LC50 <i>Oncorhynchus mykiss</i> (rainbow trout) 350-600mg / l 96 hr LC50- <i>Pimephales promelas</i> (fat head Fish) 220-250 mg/l-96 h
Acute toxicity to invertebrates	Ethyl acetate: CE50 <i>Daphnia magna</i> 2300-3090 mg / l 24 horas.
Acute toxicity to algae	CE50- <i>Algae</i> -4300 mg/l-24 h CE50- <i>SELENASTRUM</i> -1800-3200 mg/l-72 h

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Section 13: Disposal considerations

Disposal of waste and / or waste	<p>The residues of the following substances are listed as hazardous in accordance with Regulation 148:</p> <ol style="list-style-type: none"> 1. Ethyl acetate (solvent) 2. Primer (Adhesion promoter without toluene) <p>Based on the evaluation of toxicological risks Kit components Fourthane Network and in accordance with the criteria set out in Regulation 148, D 594 and DS 209/2005 Health Ministry, in consideration of the volumes contained in the kit, not applicable hazardous waste management for components and packaging can be eliminated first solvent and as an alternative fuel.</p> <p>The other corresponding waste generated palettes, spatulas, gloves, brushes, metal containers, absorbing the material, plastic bottle and carton catalyst may be disposed in industrial waste landfill.</p>
Contaminated packaging	<p>According to the Regulation No. 148, Hazardous Waste Management and analysis of toxicological risk, residual plastic containers can be arranged as an alternative fuel in cement.</p>

Section 14: Transport Information

By land by road or rail	Regulated by Supreme Decree 298, Hazardous Cargo Transportation Streets and Roads.						
Seaway	Regulation by IMO Maritime Dangerous Goods Code (IMDG).						
Airway	Regulation by IATA.						
Fluvial / lacustrine Way	Regulation by IMO Maritime Dangerous Goods Code (IMDG).						
UN NUMBER	<table border="0"> <tr> <td>Chemical name</td> <td>UN NUMBER</td> </tr> <tr> <td>1.- Ethyl acetate (Solvent)</td> <td>1173</td> </tr> <tr> <td>2.- Primer (Adherence Promotor, no toluene)</td> <td>1133</td> </tr> </table>	Chemical name	UN NUMBER	1.- Ethyl acetate (Solvent)	1173	2.- Primer (Adherence Promotor, no toluene)	1133
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distinctive applicable NCh 2190	Class 3						
Class and Risk Division	Class 3.1. Flammable liquid						
Packing / Packaging	Packing Group II						
other Information	Information not available.						

Section 15: Existing rules

International standards	IATA, IMO, Maritime Dangerous Goods Code (IMDG).	
National Standards	D.S. 298; Norm 148; D.S. 78; NCh 1411/IV; NCh 382; NCh 2190, DS 594	
Brand label	<p>NCh 2190</p> <p>NFPA diamond</p> <p>health : 1</p> <p>Flammability : 3</p> <p>reactivity : 0</p> <p>Additional Information : No additional information.</p>	: Class 3.1. Flammable liquid
Risk phrases	<p>R11: Highly flammable.</p> <p>R36 / 37/38: Irritating to eyes, skin and respiratory tract.</p> <p>R66: Repeated exposure may cause skin dryness or cracking skin.</p> <p>R67: Vapours may cause drowsiness and dizziness.</p>	
Safety phrases	<p>S2: Keep out of reach of children.</p> <p>S9: Keep container in a well ventilated place.</p> <p>S16: Keep away from flame or sources of ignition-No smoking.</p> <p>S25: Avoid contact with eyes.</p>	

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S33: Take precautionary measures against electrostatic charges.

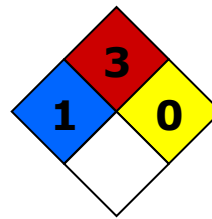
HAZARD CLASS MIX:

NCh 2190



Principal risk
flammable

NCh 1411/IV



NFPA 704



Section 16: Other information

The information contained in this Safety Data Sheet (MSDS) corresponds to the information available from reliable international sources and the manufacturer of the substance at the time of issue.