

Material Safety Data Sheet

SECURITY KIT FOR CONVEYOR BELT REPAIR - FOURTHANE RED LINE

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Revised and approved by: DRA. LAURA BÖRGEL

Effective date: July 2011 - July 2013

Section 1: Mixture and supplier identification

Name of the mixture
Supplier / manufacturer / marketer
Use of the product
Address
Phone - Fax
Chile emergency phone
Emergency fax
Mail

SECURITY KIT FOR CONVEYOR BELT REPAIR - FOURTHANE RED LINE
COMERCIALIZADORA FOURTHANE LTDA.
Conveyor belts repair.
Guacolda 688, Las Condes, Santiago, Chile.
(2)-9525704
56-02-777-1994 (Rita-Chile)
02-735-0478 (Rita-Chile)
ritachile@ritachile.cl

Section 2: Mixture Information

Case of a mixture

Security Kit for conveyor belt reparations - Fourthane RED LINE presents a wide safety margin for the manipulation of its components.

Chemical components:

(a) Principal components of the mixture

Chemical Name	Volume
1. Methyl ethyl ketone (solvent)	50cc
2. Primer (adherence promoter without toluene)	50cc
3. Catalyst	60cc
4. Resin	690g

(b) Components that constitute a risk

Chemical name
1. Methyl ethyl ketone (solvent)
2. Primer (conditioner for rubber surface, without toluene)

(c) UN number

Chemical name	ONU number
1. Methyl ethyl ketone	1193
2. Primer (adherence promoter without toluene)	1133

(d) CAS number

Chemical	CAS number
1. Methyl ethyl ketone	78-93-3
2. Primer (adherence promoter without toluene)	No CAS number

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Section 3: Risk identification

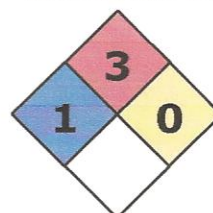
MIXTURE RISK CLASSIFICATION:

Security Kit for Conveyor Belt Repair - Fourthane RED LINE provides a **wide safety margin** regarding its internal components, as it is **more resistant to fire, water, electrostatic, and blows**, decreasing the hazardous properties of its internal mixture. The following classification refers to Kit components only when they are outside the sealed container, in case of bad handling or of an accident,

NCh 2190



Rhombus NCh 1411/IV



Main Risk
Flammable

NFPA 704



(a) Risks to people's health

Effects of an acute overexposure (a single time)

For the product quantity contained per Kit there are no expected effects due to overexposure, as there is twice less the amount of product than the temporal limit allows. An over-exposure to larger amounts may be harmful through inhalation. An overexposure to product vapors or skin absorption of significant amounts of the product, as well as the ingestion of the product, have a toxic effect on the "narcosis" Central nervous system, characterized by headaches, dizziness, nausea, and loss of coordination.

Inhalation

For the product quantity contained per Kit there are no expected effects due to overexposure, as the amount is 8 times less than the LC50 inhalation level. Hazardous due to excessive inhalation of the product. Vapors are irritating to membranes, and mucous of the upper respiratory tract (nose, throat, etc.) It is a narcotic in high vapor concentrations (Narcosis).

Skin contact

For the product quantity contained per Kit there are no expected effects due to overexposure, as the amount is 13 times less than the dermal LD50 level. The liquid slightly irritates the skin, therefore prolonged or repeated contact may lead to skin dryness, and it may cause dermatitis. It can also be absorbed through the skin and cause a systematic toxicity in the case of a high overexposure to the product.

Eye contact

For the product quantity contained per Kit there are no expected effects due to overexposure. The liquid in high vapor concentrations severely irritates the eyes. It may cause "Narcosis".

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Ingestion

For the product quantity contained per Kit there are no expected effects due to overexposure, as the amount is 5 times less than oral LD50. A massive ingestion of the product can irritate the gastrointestinal tract. It may cause vomit. When the liquid is ingested or vomited, it can directly enter into the lungs by aspiration, which should be avoided, because small quantities can cause a chemical pneumonia

Effects of a chronic overexposure (long term)

For the product quantity contained per Kit no long terms effects are expected: only in case of a prolonged and/or repeated contact period it can cause skin dryness that can produce dermatitis. Only in case that the exposition is chronic and in confined spaces can it cause kidney and metabolism damage in case of massive exposure to the product. For the quantity contained per kit, no medical conditions are expected to be aggravated by exposure to the product. If there are preexisting eye, skin, respiratory and gastrointestinal disorders, these may be aggravated by overexposure to this product. People with chronic problems in the respiratory system must not be exposed to prolonged contact with the product.

Medical conditions that will be aggravated by exposure to the product

(b) Environmental hazards

In the event of a simultaneous accidental dumping of more than 40 Kits may have an indirect risk in the aquatic environment generating an oxygen reduction. Biodegradable product.

(c) Hazards of chemical physical nature.

Easily flammable.

(d) Specific risks

This Kit should be handled in open spaces, or with natural or forced ventilation in confined spaces. At handling at normal temperature in **confined spaces without ventilation, when massive quantities of the product are involved and while simultaneously using more than one Kit**, there is the likelihood of formation of flammable air-vapor mixtures (especially in empty containers that have not been cleaned up). Vapors are heavier than air, by which they can move at ground level, due to which a long distance ignition may occur.

Section 4: First aid measures

IN CASE OF ACCIDENTAL CONTACT WITH THE PRODUCT, PROCEED IN ACCORDANCE WITH:

Inhalation

Only in the event of massive exposure of the product via inhalation, carry the affected person to an uncontaminated atmosphere to breathe pure air and provide oxygen to the victim if his/her breathing is difficult, if dizzy, or unresponsive. If there is no fast recovery obtain medical care.

Skin contact

Wash with water and soap, remove contaminated clothing. If irritation occurs seek medical assistance. Wash clothing before using it again.

Eye Contact

Wash immediately with plenty of water while keeping eyelids open for at least 15 minutes. OBTAIN MEDICAL ASSISTANCE IMMEDIATELY.

Ingestion

IN CASE OF INGESTION DO NOT INDUCE VOMIT. DO NOT GIVE LIQUIDS TO THE VICTIM IF HE/SHE IS UNCONSCIOUS OR VERY NUMB. Make the victim rinse the mouth with two sips of water to remove the taste off the mouth, if he/she vomits spontaneously keep his/her head under the hips to prevent aspiration. If there is no fast recovery obtain medical care.

Notes for the treating physician

Prolonged or repeated exposure may cause dermatitis. In the event of a prolonged and massive overexposure to the product, it may

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cause depression in the central nervous system "Narcosis".

Section 5: Fire fighting measures

Security Kit for Conveyor Belt Repair - Fourthane RED LINE provides a **wide safety margin** regarding its internal components, as it is **more resistant to fire, water, electrostatic, and blows**, decreasing the hazardous properties of its internal mixture. The following **classification refers to Kit components** only when they are outside the sealed container, in case of bad handling or of an accident.

Specific risks to take into account measures for fire control measures

Some components of the product have very low ignition point: therefore immediately pour the absorbent material on the product in order to avoid the displacement of the vapors towards the fire zone. The use of water spray when fighting the fire may be ineffective.

Extinction agents

Foam, dry chemical powder or carbon dioxide. The water fog may not be effective.

Special procedures to combat the fire

If possible, keep the wind in the back, attack the fire from the greatest possible distance. Cool containers exposed to fire.

Personal protection equipment for fire fighting

Use respiratory protection equipment with cylinders and full mask. Helmet with visor that allows reflecting the heat. Safety boots.

Hazardous products released from combustion

CO₂, and if there is incomplete combustion CO. Carbon monoxide is highly toxic if it is inhaled, the carbon dioxide in sufficient concentrations can cause asphyxia.

Section 6: Measures to control spills or leaks

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Emergency measures to take in case of a spillage

Contain with inert absorbent material located in the interior of each Kit so it does not reach watercourses, sewers or the underground. Isolate the sector and keep away possible sources of ignition. If fire risk exists, evacuate the area.

Personal protective equipment to control the emergency.

Use vapor detectors to limit approximation and protection radius, use sight and hand protection, do not expose to contact with vapors (fire hazard) Use autonomous breathing equipment, full chemical protection suit.

Personal precautions

Do not touch or walk on the spilled material.

Precautions needed to prevent environmental damage

Leaks resulting from fire control or water dilution may cause pollution.

Cleaning Methods (recovery - neutralization)

In case of small spills, recovered with inert absorbent material. In the event of massive spills, recover with anti explosion motor equipped pumps.

Waste disposal methods

Waste can be eliminated by incineration in an installation specially designed for this according to the regulations in force.

Secondary risk prevention notes

The majority of the vapors are heavier than air, they will be scattered along the ground and hoard in low and confined areas (sewers, cellars, tanks).

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Section 7: Handling and storage

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7.1 HANDLING

Technical measures (recommendations)

This product should be used in well-ventilated areas, forced local ventilation may be necessary. You can build up static electricity and create a risk of fire, for which equipment must be connected to ground.

Precautions to take

Take the normal precautions to store flammable material: well-ventilated places, with explosion proof lighting, with nearby equipment for fire-fighting and avoid sources of ignition.

Recommendations on safe handling, specific

Use protection goggles, neoprene gloves, if the conditions make it necessary use breathing tube with organic vapors' filter.

7.2 STORAGE

Technical measures

Keep away from direct sun light and other sources of heat or ignition. Store under current regulations.

Storage conditions

Do not smoke in storage areas. Keep the cans closed and in a well-ventilated place. Do not open the safety Kit until it is ready to be used. Once opened does not store or dispose. Do not reutilize.

Recommended and not suitable for the supplier packaging

The containers must be metallic.

Section 8: Exposure Control / personal protection

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Measures to reduce the chance of exposure

Take from the bottles only the amount needed in the process. Keep containers closed. Store in open enclosures or with natural or forced ventilation. Do not reuse excess material. Hemogram and renal function tests.

Control parameters

Occupational exposure limits

OSHA: Methyl ethyl ketone

Permissible exposure limit:

8 hour time weighted average: 200 ppm (590 mg/m3).

NIOSH: Methyl ethyl ketone

Recommended exposure limit:

10 hour time weighted average: 200 ppm (590 mg/m3).

15-minute short-term exposure limit: 300 ppm (885 mg/m3).

ACGIH: Methyl ethyl ketone

Median time measured in 8 hours (TWA): 200 ppm

Short-term exposure limit in 15 minutes (STEL): 300 ppm.

D.S 594: methyl ethyl ketone

Weighted permissible limit: 160 ppm or 472 mg/m3.

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Stability	Stable under normal conditions of use. It reacts to strong oxidizing agents. It can be oxidized to acids and reduced to the corresponding alcohol, (Isopropanol IPA).
Conditions to avoid	Heat, flames and sparks, accumulation of vapors
Incompatibility (materials to avoid)	Avoid mixing with strongly oxidizing materials. It can form explosive mixtures with them.
Dangerous decomposition products	It decomposes by emitting pungent and irritating fumes.
Hazardous combustion products	Pungent and irritating fumes.
Hazardous polymerization	It does not occur.

Section 11: Toxicological information

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SHORT TERM TOXICITY

Short term oral toxicity (acute or severe)

Report in rats:

Methyl ethyl ketone:

Oral LD50 3400 mg/kg of body weight

Inhalant LC50 > 5000 mg/kg of body weight

Dermal LD50 > 8000 mg/kg of body weight

Acute inhalation toxicity

Irritation of the respiratory tract, dizziness and loss of strength.

Dermal toxicity

Irritation, dryness and cracking of skin.

LONG TERM TOXICITY (CHRONIC)

Mutagenicity

Methyl ethyl ketone and Primer not classified as mutagenic according to IRIS US EPA.

Carcinogenicity (IARC, EPA)

Methyl ethyl ketone and Primer not classified as carcinogens according to IARC.

Local or systemic effects

There may be systemic effects on the metabolism and the kidneys and liver in case of contact extended at high concentrations.

Awareness allergenic

Eye irritation and dryness of the skin

Specific effects

Irritation, coughing, nausea.

Scientific experiments

Information is not available.

Section 12: Ecological information

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Instability

Stable under normal storage conditions.

Persistence / degradability

Methyl ethyl ketone and Primer are expected to be biodegrades under aerobic and anaerobic conditions quickly.

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Packaging
Other information

Topic: packaging II
Information is not available

Section 15: Existing norms

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International standards

IATA, IMO, maritime dangerous goods (IMDG) code.

Applicable national rules

D.S. 298; D.S. 148; D.S. 78; NCh 1411/IV; NCh 382; NCh 2190.

Marks on label

NCh 2190

: 3.1

Class. Flammable liquid

Rombo NFPA

Health

: 1

Flammability

: 3

Reactivity

: 0

Additional information: no additional information

Risk phrases

R11: Easily flammable.

R36/37/38: Irritating to eyes, skin and respiratory tract.

R66: Repeated exposure may cause drying or formation of cracks in the skin.

R67: Inhalation of vapors may cause drowsiness and dizziness.

S2: Keep out of the reach of children.

S9: Keep container in a well-ventilated place.

S16: Keep away from any flame or source of chispas-No smoking.

S25: Avoid contact with eyes.

S33: Avoid the build-up of electrostatic charges.

Safety phrases

RISK CLASSIFICATION OF THE MIXTURE:

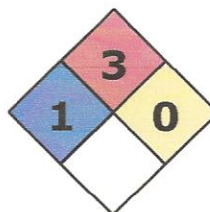
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NCh 2190



Riesgo Principal
Inflamable

Rombo NCh 1411/IV



NFPA 704

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