

TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#1/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

SECTION1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code: TYRE REPAIR

Trades code: 1100 - 1150 - 1200 - 1300 - 1400 - 1500

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

Tyre inflates & repair
Private households (= general public = consumers)[SU21]
Automotive Care Products

Uses advised against

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

Super Help srl - Via V. Veneto, 11 - 21100 Varese (VA) - Italy Tel. + 39 347/4650120 Fax +39 0331/953178

Email: info@super-help.com - Web: www.super-help.com

1.4. Emergency telephone number

Centro Antiveleni Ospedale Niguarda (MI) - 0266101029 24 ore su 24

SECTION2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS02

Hazard Class and Category Code(s):

Flam, Aerosol 1

Hazard statement Code(s):

H222 - Extremely flammable aerosol.

2.1.2 Classification according to Directive 1999/45/EEC:

Classification:

F+; R12

Nature of special risks attributed:

R12 - Extremely flammable.

Aerosol that ignites easily even at low temperatures, fire risk

The repeated inhalation of vapors can cause drowsiness and giddiness.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.

The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#2/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):

GHS02 - Danger

Hazard statement Code(s):

H222 - Extremely flammable aerosol.

Precautionary statements:

Prevention

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

P211 - Do not spray on an open flame or other ignition source.

P251 - Pressurized container: Do not pierce or burn, even after use.

Storage

P410+P412 - Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122 °F.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50° C. Do not pierce or burn, even after use.

2.3. Other hazards

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

No information on other hazards

SECTION3. Composition/information on ingredients

3.1 Substances

IrrilevantHydrocarbons, C3-4 contains less than 0,1 % w/w 1,3-butadiene (EINECS No 203-450-8)

3.2 Mixtures

Refer to paragraph 16 for full text of risk phrases and hazard statements

Substance	Concentration	Classification	Index	CAS	EINECS	REACh
Hydrocarbons, C3-4	> 30 <= 50%	F+; R12 Flam. Gas 1, H220; Press. Gas, H280	649-199-00-1	68476-40-4	270-681-9	01- 211948657- 22
ethylene glycol	> 1 <= 5%	Xn; R22 Acute Tox. 4, H302	603-027-00-1	107-21-1	203-473-3	01- 2119456816-
ammonia, aqueous solution	> 0,1 <= 1%	C; R34 N; R50 Skin Corr. 1B, H314; Aquatic Acute 1, H400	007-001-01-2	1336-21-6	215-647-6	01- 2119488776- 14
Amine Oxide	> 0,1 <= 1%	Xn; R22 Xi; R38 Xi; R41 N; R50 Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 2, H411		3332-27-2	222-059-3	01- 2119949262- 37
Lauryldimethylamine Oxide	> 0,1 <= 1%	Xn; R22 Xi; R38 Xi; R41 N; R50 Skin Irrit. 2, H315;		1643-20-5	216-700-6	

(



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

Substance	Concentration	Classification	Index	CAS	EINECS	REACh
		Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 2, H411				

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:

Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product).:

Wash thoroughly with soap and running water.

Direct contact with eves (of the pure product).:

Wash immediately and thorougly with running water for at least 10 minutes.

Inaestion:

Not hazardous. It's possible to give activated charcoal in water or liquid paraffin medicine

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

For symptoms and effects due to substances refer to paragraph 11.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:

Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.

CO2 or dry powder extinguisher

Extinguishing means to avoid:

Direct jets of water

5.2. Special hazards arising from the substance or mixture

The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.

Manufactured under pressure in sealed metal container (test pressure 15 bar max). Cool containers with water spray trying to remove them from the fire. The aerosol containers can be overheated and burst violently ejected from a distance (protect the head using a safety helmet).

5.3. Advice for firefighters

Use protection for the breathing apparatus

Safety helmet and full protective suit.

The spray water can be used to protect the people involved in the extinction

You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

#3/11



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#4/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

SECTION6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Leave the surrounding area recalling that any overheating could project the cylinder at a considerable distance.

Wear gloves and protective clothing

6.1.2 For emergency responders:

Given the tightness of aerosol, it is unlikely that the spillage may occur.

However if some container is damaged likely to cause a loss, insulate the tank in question by bringing it to open air or covering it with inert material and fuel (eg sand, earth, vermiculite) and having the care to avoid any point of ignition that might pose a serious risk of fire.

Wear suitable gloves (PVC, butyl rubber, neoprene or similar) and protective clothing.

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provision of sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill

Inform the competent authorities.

Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:

Recover the product for reuse, if possible, or the removal.

6.3.2 For cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors. See also paragraph 8 below.

At work do not eat or drink.

Do not smoke at work

Vapors are heavier than air and may spread close to the ground and form explosive mixtures with air. Prevent formation of flammable or explosive concentrations in the air.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.

Do not pierce or burn, even after the use. Do not spray on flame or incandescent objects. Use in adequately ventilated areas.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.

Keep containers upright and safe by avoiding the possibility of falls or collisions.

Pressurized container. Store in a ventilated place, in original packaging away from heat and sunlight.

Always store in well ventilated areas.

Keep away from open flames, sparks and heat sources. Avoid direct sunlight exposure.



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#5/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

Keep faway from flames and spark. Avoid static discharges.

7.3. Specific end use(s)

Private households (= general public = consumers):

- · Keep away from heat sources, sparks, open flames
- · Do not use on hot surfaces or surfaces exposed to direct sunlight
- · Do not breathe spray/vapours
- · Avoid contact with eyes, skin, clothing
- · Do not eat, drink or smoke when using
- Do not use in confined and/or limited spaces
- · Accumulations of flammable gas in the air may occur in case of an excessive use
- Use at a distance of 20 cm from the surface to be treated to prevent dispersion in the air
- Spray only briefly and take care for a good ventilation after use

SECTION8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:

Hydrocarbons, C3-4

TLV-TWA: 1000 ppm (ACGIH 2010) MAK: 1000 ppm 2400 mg/m³ Peak limitation category: II(4)

Pregnancy risk group: D (DFG 2008)

ethylene glycol

TLV-STEL: 100 mg/m³ (Ceiling value)

A4 (not classifiable as a human carcinogen) (ACGIH 2005)

MAK: 10 ppm, 26 mg/m³ Peak limitation category: I(2)

Pregnancy risk group: C (DFG 2005)

ammonia, aqueous solution

TLV-TWA: 25 ppm - 17 mg/m³ (as NH3, ACGIH 2005) TLV-STEL: 35 ppm - 24 mg/m³ (as NH3, ACGIH 2005)

MAK: 20 ppm - 14 mg/m³ Peak limitation category: I(2)

Pregnancy risk group: C (DFG 2005)

8.2. Exposure controls



Appropriate engineering controls:

Private households (= general public = consumers):

Work in a well ventilated place or equipped with ventilation devices. Do not use on hot surfaces or surfaces exposed to sunlight in order to avoid rapid evaporation of the product. Use personal protective equipment (see below).

Individual protection measures:

- (a) Eye / face protection Wear safety goggles to EN-166
 - (b) Skin protection
- (i) Hand protectionNot needed for normal use.
 - (ii) Other



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#6/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

Avoid direct contact with the skin Better is to use cotton antistatic clothing

(c) Respiratory protection
Work in a sufficiently ventilated to avoid inhaling the product.

(d) Thermal hazards No hazard to report

Environmental exposure controls:

Use according to good working practices to avoid pollution into the environment.

SECTION9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method		
Appearance	white liquid under pressure	VISUAL		
Odour	characteristic, ammoniacal	ORGANOLEPTIC		
Odour threshold	not determined			
рН	irrelevant	PH-METER		
Melting point/freezing point	< - 100 °C (liquid gas)			
Initial boiling point and boiling range	> -42 °C (liquid gas)			
Flash point	< -80 °C (liquid gas)			
Evaporation rate	not determined			
Flammability (solid, gas)	irrelevant			
Upper/lower flammability or explosive limits	LEL 1,8 % (vol); UEL 9,5 % (vol)			
Vapour pressure	5,5 bar			
Vapour density	> 2 (liquid gas)			
Relative density	0,64 - 0,69 kg/l			
Solubility	in water			
Water solubility	complete			
Partition coefficient: n-octanol/water	not determined			
Auto-ignition temperature	> 400 °C (liquid gas)			
Decomposition temperature	not determined			
Viscosity	not determined			
Explosive properties	not determined			
Oxidising properties	not determined			
Container volume	110 – 140 – 210 – 270 – 405 – 520 – 650 ml	ISO 90-3:2000		
Product volume	75 – 100 – 150 – 200 – 300 – 400 – 500 ml	ISO 90-3:2000		
Pressure to 20 °C	5,5 bar			
Deformation pressure	16,5 bar	MANOMETER GAUGE		
Burst pressure of the container	18 bar	MANOMETER GAUGE		
Flash point of liquid phase	nonflammable			
Propellent inflammability	< 0 °C			

9.2. Other information

No data available.



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#7/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

SECTION10. Stability and reactivity

10.1. Reactivity

Related to contained substances:

ethylene glycol

On combustion, forms toxic gases. Reacts with strong oxidants and strong bases.

ammonia, aqueous solution

Reacts with many heavy metals and their salts forming explosive compounds. Attacks many metals forming flammable/explosive gas (hydrogen - see ICSC 0001). The solution in water is a strong base, it reacts violently with acids.

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Avoid static discharges.

The aerosol product is stable for a period exceeding 36 months and in normal storage conditions can not take place dangerous reactions as the container is almost hermetically sealed.

Avoid contact with combustible materials. The product could catch fire.

heat, open flames, sparks or hot surfaces.

To avoid that the metal container can deteriorate, keep away from acidic or basic products. Attention to the heat as temperatures exceeding 50 °C has increased pressure inside the container that gets to deformation of the cylinder until the outbreak.

10.5. Incompatible materials

It can generate inflammable gases to contact with elementary metals, nitrides, strong reducing agents.

It can generate toxic gases to contact with oxidants mineral acids, organic peroxides, organic water peroxides.

It can ignite in contact with oxidants mineral acids, organic nitrides, peroxides and water peroxides, strong oxidants agents.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION11. Toxicological information

11.1. Information on toxicological effects

ATE(mix) oral = 168.816,3 mg/kg

ATE(mix) dermal = 0,0 mg/kg

ATE(mix) inhal = 0.0 mg/l/4 h

- (a) acute toxicity: not applicable
- (b) skin corrosion/irritationnot applicable
- (c) serious eye damage/irritation: not applicable
- (d) respiratory or skin sensitization: not applicable
- (e) germ cell mutagenicity: not applicable



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#8/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

- (f) carcinogenicity: not applicable
- (g) reproductive toxicity: not applicable
- (h) specific target organ toxicity (STOT) single exposure: not applicable
- (i) specific target organ toxicity (STOT) repeated exposurenot applicable
- (j) aspiration hazard: not applicable

Related to contained substances:

Hydrocarbons, C3-4

ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation.

INHALATION RISK: On loss of containment this liquid evaporates very quickly displacing the air and causing a serious risk of suffocation when in confined areas.

EFFECTS OF SHORT-TERM EXPOSURE: Rapid evaporation of the liquid may cause frostbite. The substance may cause effects on the central nervous system.

ACUTE HAZARDS/SYMPTOMS

INHALATION Drowsiness. Unconsciousness.

SKIN ON CONTACT WITH LIQUID: FROSTBITE.

EYES ON CONTACT WITH LIQUID: FROSTBITE.

N O T E S High concentrations in the air cause a deficiency of oxygen with the risk of unconsciousness or death.

ethylene glycol

ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation and through the skin.

INHALATION RISK: A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20 °C.

EFFECTS OF SHORT-TERM EXPOSURE: The substance irritates the eyes and the respiratory tract. The substance may cause effects on the kidneys and central nervous system, resulting in renal failure and brain injury. Exposure could cause lowering of consciousness.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: The substance may have effects on the central nervous system, resulting in abnormal eye movements (nystagmus).

ACUTE HAZARDS/SYMPTOMS

INHALATION Cough. Dizziness. Headache.

SKIN Dry skin.

EYES Redness. Pain.

INGESTION Abdominal pain. Dullness. Nausea. Unconsciousness. Vomiting.

NOTES The occupational exposure limit value should not be exceeded during any part of the working exposure.

LD50 (rat) Oral (mg/kg body weight) = 5840

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5

ammonia, aqueous solution

ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation of its vapour or aerosol and by ingestion.

INHALATION RISK: A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20°C.

EFFECTS OF SHORT-TERM EXPOSURE: The substance is corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion as well. Inhalation of high concentrations of vapour may cause laryngeal oedema, inflamation of the respiratory tract, and pneumonia. The effects may be delayed.

EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: Lungs may be affected by repeated or prolonged exposure to the vapour or aerosol.

ACUTE HAZARDS/SYMPTOMS

INHALATION Burning sensation. Cough. Laboured breathing. Shortness of breath. Sore throat.

SKIN Corrosive. Redness. Serious skin burns. Pain. Blisters.

EYES Corrosive. Redness. Pain. Blurred vision. Severe deep burns.

INGESTION Corrosive. Abdominal cramps. Abdominal pain. Sore throat. Vomiting. (Further see Inhalation).

NOTES Ammonia vapour is flammable and explosive under certain conditions. Be aware that ammonia gas can evolve from ammonia solution. Depending on the degree of exposure, periodic medical examination is suggested. Do NOT completely fill bottles with the substance; strong solutions may develop pressure. Release caps with care.

LD50 (rat) Oral (mg/kg body weight) = 350

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 2000



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#9/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

Amine Oxide Skin contact: irritant

Eyes contact: irritant, risk of serious damages LD50 (rat) Oral (mg/kg body weight) = 3600

SECTION12. Ecological information

12.1. Toxicity

Related to contained substances:

Hydrocarbons, C3-4

Toxicity to daphnia and other aquatic invertebrates

- LC50 Daphnia magna, 48h = 14,22 mg/l (butane)

ammonia, aqueous solution

The substance is very toxic to aquatic organisms.

Toxicity to fish

- LC50 Oncorhynchus mykiss (rainbow trout), 96h: 0,53 mg/l

Toxicity to daphnia and other aquatic invertebrates

- EC50 Daphnia magna, 24h: 1,16 mg/

Amine Oxide

Toxicity to fish

- LC50 (fish): 1,5 mg/l

Toxicity to daphnia and other aquatic invertebrates

- EC50 (Daphnia magna, 48h): 46 mg/l

Toxicity to algae

- EC50 (Scenedesmus subspicatus, 72h): 110 mg/l

Very toxic to aquatic organisms.

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

Related to contained substances:

Amine Oxide

Biodegradability 100%.

12.3. Bioaccumulative potential

Related to contained substances:

Hydrocarbons, C3-4

1.09 to 2.80 log Pow (liquefied petroleum gas)

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.6. Other adverse effects

No adverse effects



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#10/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

SECTION13. Disposal considerations

13.1. Waste treatment methods

The waste must be disposed of in compliance with the regulations in force delivering empty containers for final disposal and equipped to safely handle pressurized containers containing flammable liquids and gas waste. The empty container heated to temperatures exceeding 70 °C can burst.

Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

SECTION14. Transport information

14.1. UN number

1950

ADR exemption because compliance with the following characteristics:

Combination packagings: per inner packaging 1 L per package 30 Kg

Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg

14.2. UN proper shipping name

AEROSOL flammable

14.3. Transport hazard class(es)

Class: 2 Label: 2.1

Tunnel restriction code : D Limited quantities : 1 L

EmS: F-D, S-U

14.4. Packing group

--

14.5. Environmental hazards

Product is not environmentally hazardous Marine polluting agent: Not

14.6. Special precautions for user

The transport must be carried out by authorized vehicles for the transport of dangerous goods in accordance with the requirements of the applicable Edition of the agreement A.D.R. and national provisions.

The transport must be carried out in the original packaging and in packages that are made from materials resistant to content and not likely to generate with this dangerous reactions. The process of loading and unloading of dangerous goods have received adequate training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

It is not intended to carry bulk

SECTION15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 96/82/EC (Seveso), annex I, part 2: category 8

Regulation 2006/1907/EC (REACH), Regulation 2008/1272/EC (CLP), Regulation 2009/790/EC.



TYRE REPAIR

Issued on 11/15/2010 - Rel. # 2 on 09/20/2013

#11/11

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION16. Other information

16.1. Other information

Points modified compared to previous release: 1.1. Product identifier, 2.1. Classification of the substance or mixture, 2.2. Label elements, 2.3. Other hazards, 3.1 Substances, 3.2 Mixtures, 4.3. Indication of any immediate medical attention and special treatment needed, 6.1. Personal precautions, protective equipment and emergency procedures, 7.2. Conditions for safe storage, including any incompatibilities, 8.1. Control parameters, 10.1. Reactivity, 10.4. Conditions to avoid, 11.1. Information on toxicological effects, 12.1. Toxicity, 12.2. Persistence and degradability

Description of the sentences of risk set out in paragraph 3

R12 = Extremely flammable.

R22 = Harmful if swallowed.

R34 = Causes burns.

R38 = Irritating to skin.

R41 = Risk of serious damage to eyes.

R50 = Very toxic to aquatic organisms.

Description of the hazard statements exposed to point 3

H220 = Extremely flammable gas.

H280 = Contains gas under pressure; may explode if heated.

H302 = Harmful if swallowed.

H314 = Causes severe skin burns and eye damage.

H400 = Very toxic to aquatic life.

H315 = Causes skin irritation.

H318 = Causes serious eye damage.

H411 = Toxic to aquatic life with long lasting effects.

Classification based on data of all mixture components

Main normative references:
Directive 67/548/EEC (29th adaptation)
Directive 1999/45/EC
Directive 2001/60/EC
Regulation 1272/2008/EC
Regulation 2010/453/EC

^{***} This tab annuls and replaces any previous edition.