# **Material Safety Data Sheet**

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

## 1. Product and Company Identification

Product Name:

TF-98 (Craftsman Contact Cement)

Chemical Name: Polychloroprene Adhesive Blend/Compound

Manufacturer: R-H Products Co. Inc. 308 Old High Street Acton, MA USA 01720

Information Telephone Number: 1-978-897-800

Emergency Telephone Number: 1-800-535-5053 INFOTRAC

Foreign Emergency Telephone Number: 1-352-323-3500 INFOTRAC

2. Composition/Information on Ingredients

|                     | cific Chemical Identity, Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits<br>Recommended | By Weight % (optional) |
|---------------------|--|----------|-----------|-----------------------------|------------------------|
| Heptane             | CAS# 142-82-5                            | 500 ppm  | 500 ppm   |                             | 47.00                  |
| Methyl Ethyl Ketone | CAS# 78-93-3                             | 300 ppm  | 300 ppm   |                             | 17.2%                  |
| Ethyl Acetate       | CAS# 141-78-6                            | 400 ppm  |           |                             | 10.9%                  |
| Acetone             | CAS# 67-64-1                             | 1000 ppm | 400 ppm   |                             | 11.7%                  |
| Tert-Butyl Acetate  | CAS# 540-88-5                            |          | 750 ppm   |                             | 30.3%                  |
| J. T. Toolato       | O/10# 040-08-3                           | 200 ppm  | 200 ppm   |                             | 9.7%                   |

### 3. Hazards Identification

| Nou | re(2) | U | ury |  |
|-----|-------|---|-----|--|
|     |       |   |     |  |

Primary

Inhalation?

Yes

Skin?

Yes

Ingestion?

Yes

Health Hazards (Acute and Chronic)

Eyes - Liquid mildly irritating. Overexposure may also cause irritation. Skin - Prolonged contact can cause irritation and possible dermatitis. Breathing - Overexposure may cause irritation to respiratory system. Extreme overexposure to vapors may result in central nervous system, liver and kidney damage. Ingestion - May cause gastrointestinal

Carcinogenicity None (No)

NTP?

N/A

IARC Monographs?

N/A

**OSHA Regulated?** 

N/A

Signs and Symptoms of Exposure

Eyes - Redness, tearing and swelling. Skin - Dryness of skin including cracking. Breathing - Overexposure includes dizziness, headache, nausea, and light headedness. Swallowing - Nausea, vomiting, and diarrhea

Medical Conditions

Skin – Prolonged contact will irritate skin and may cause dermatitis. Breathing – Extreme overexposure to Generally Aggravated by Exposure vapors may cause nervous system damage. Swallowing – May cause nausea, vomiting and diarrhea. Aspiration into the lungs as a result of vomiting may cause lung damage.

### 4. First Aid Measures

Emergency and First Aid Procedures

Eye contact – Flush immediately with water. Call a physician. Skin contact – Wash area with soap and water. Breathing - Move affected person to fresh air at once. Restore breathing. Call a physician if difficulties persist. If swallowed DO NOT INDUCE VOMITING. Call a physician. Give water to victim. If vomiting occurs, prevent aspiration into lungs by lowering head between knees.

## 5. Fire Fighting Measures

| Flash Point (Method Used)     | Component(Acetone) 0 F               | Flammable Limits               | I LEL         | 40/        | I UEL                         |
|-------------------------------|--------------------------------------|--------------------------------|---------------|------------|-------------------------------|
| Extinguishing Media           |                                      |                                |               | 1%         | 12%                           |
| Special Fire Fighting Procedu | FOAM, DRY CHEMICAL, CO <sub>2</sub>  |                                |               |            |                               |
|                               | Fire Fighters should be equipped wit | h self-contained breathing ap  | paratus wher  | n fighting | fires involving this material |
| Unusual Fire and Explosion H  | Extremely Flammable. Overheate       | d, closed container near a fir | e could explo | de due to  | pressure buildup.             |

### 6. Accidental Release Measures

| Steps to Be Taken in Case Material Is Released or Spilled |  |
|---|--|
|   | Extinguish all sources of ignition in area. Collect spilled material and place in a closed container for |
|   | disposal or salvage.   |

## 7. Handling and Storage

Precautions to Be Taken in Handling and Storing Keep away from heat; open flames and sparks. Use and store with adequate ventilation to prevent vapor buildup. Vapors released by product can easily ignite.

Other Precautions Avoid contact with skin and eyes. Avoid prolonged breathing of vapors. Keep container closed when not in use. KEEP OUT OF REACH OF CHILDREN

Hazardous Decomposition or Byproducts

May Occur

Will Not Occur

Hazardous Polymerization

# 8. Exposure Control/Personal Protection

|   |  | exceeds occupational exp<br>0.134 CCROV or SA types                             | osure limits use a NIOSH approved res  | pirator to prevent overexposure. Pe |
|---|--|---|--|-------------------------------------|
| Ventilation   | Should be used to TLV(s)   | maintain exposure below   |  | maybe required to control vapor     |
| D   | Delow II V(s)  | d to maintain exposure  | Other N/D  |                                     |
| Other Protect   | Impervious gloves; (for Solver   |   | Protection Chemical goggles or safety gla  | asses                               |
|   | tive Clothing or Equipment Work apron  | o avoid contact with perso  | nal clothing and skin.   |                                     |
| Volkinygleni  | Keen area clean Wash h   | ands thoroughly after worl  | ing with product   |                                     |
| Boiling Poin  |  | Chemical Proper   |  |                                     |
| Boiling Poin Vapor Press                                | 9. Physical and  Acetone (Component)  Sure (mm Hg) at 68° F  | Chemical Proper   | ties   | Approx82                            |
| Boiling Poin Vapor Press Vapor Densi                    | 9. Physical and  Acetone (Component)  Sure (mm Hg) at 68° F  ity (AIR = 1)                           | Chemical Proper   | <b>ties</b> Specific Gravity (H <sub>2</sub> 0 = 1)  | Approx82 N/D Slower                 |
| Boiling Poin  Vapor Press  Vapor Densi  Solubility in 1 | 9. Physical and  Acetone (Component)  Sure (mm Hg) at 68° F  ity (AIR = 1)  Water Insoluble in water | Chemical Proper  132° F  Not established  Heavier                               | Specific Gravity (H <sub>2</sub> 0 = 1)  Melting Point  Evaporation Rate (Butyl Acetate = 1) | N/D                                 |
| Boiling Poin Vapor Press Vapor Densi                    | 9. Physical and  Acetone (Component)  Sure (mm Hg) at 68° F  ity (AIR = 1)  Water Insoluble in water | Chemical Proper  132° F  Not established  Heavier  Liquid with Amber and Street | Specific Gravity (H <sub>2</sub> 0 = 1)  Melting Point  Evaporation Rate (Butyl Acetate = 1) | N/D                                 |

CO<sub>2</sub>, HCL, CO when subjected to flames or excessive heat

X

Conditions to Avoid

N/A

## 11. Toxicological Information

Route(s) of Entry: Skin contact, inhalation, eye contact and ingestion. Irritant. No other data.

## 12. Ecological Information

No data available

## 13. Disposal Considerations

Waste Disposal Method

Dispose in accordance with local and current U.S. E.P.A. regulations.

U.S. E.P.A. Hazardous Waste Number: D001 (Ignitable)

## 14. Transport Information

DOT Information: UN1133, ADHESIVES, 3, PGII , Ltd Qty (1.3gal)

ERG #128

Optional information: Consumer Commodity ORM-D for small containers only

IMO Information: see US DOT above.

## 15. Regulatory Information Federal and State and Other regulations:

Methyl Ethyl Ketone is subject to the reporting requirements of section 313 of SARA Title II

TASCA 8(b) inventory: all components are listed.

Components only are listed under various state RTK and reporting lists.

OSHA: Hazardous by definition in Hazard Communication Standard (29 CFR 1910.1200)

EINECS: Components are on the European Inventory of Existing Commercial Chemical Substances

WHMIS (Canada) Class B-2(flash point) and Class D-2B (toxic)

DSCL (EEC) Components listed as R11 Highly flammable, R36/37 Irritating to eyes and respiratory system,

S2 Keep out of reach of children, S16 Keep away from sources of ignition-No smoking, S26-In case of

contact with eyes, rinse immediately with plenty of water and seek medical advise.

### 16. Other Information

# Regulated VOC's by weight 40% - 2.77 lbs/gal - 333 g/l

HMIS Ratings: Health-1; Flammability-3; Reactivity-0

Key- 4 Extreme,3 High,2 Moderate,1 Slight

NFPA Ratings: Health-2; Flammabilty-3; Reactivity-0

# Dated August 18, 2011

The information above is believed to be accurate and represents the information currently available to us. We however, make no warranty of merchantability or any other warranty, express or implied, with respect to this information, and we assume no liability resulting from its use.

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 03/10/2014

Version: 1.0

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### **Product identifier**

Product form

: Mixture

**Product Name** 

: Tanner's Bond Craftsman Contact Cement

Synonyms

: Polychloroprene Adhesive Blend/Compound

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

#### 1.2.1. Relevant identified uses

No additional information available

### 1.2.2. Uses advised against

No additional information available

#### Details of the supplier of the safety data sheet 1.3.

Company

RH Products Co., Inc. 308 Old High Street Acton, MA USA 01720

Information Telephone Number: 1-978-897-8000

email: sales@rhadhesives.com

#### **Emergency telephone number**

Emergency number

: 1-800-535-5053 INFOTRAC; 1-352-323-3500 INFOTRAC International

### SECTION 2: Hazards identification

### Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225 Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H336

Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

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

Xi; R36/38 **R67** 

N; R51/53 F; R11

Full text of R-phrases: see section 16

## Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)







Signal word (CLP)

: Danger

Hazardous ingredients

: n-Heptane, Ethyl acetate, Acetone, Methyl ethyl ketone

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

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

P261 - Avoid breathing mist, spray, vapours.

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear eye protection, protective clothing, protective gloves.

P303+P361+P353+P352 - IF ON SKIN (or hair): Take off immediately all

contaminated clothing. Rinse skin with water/shower. Wash with plenty of water. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for

breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

P321 - Specific treatment (see Section 4 on this label).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>) to extinguish.

P391 - Collect spillage.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P235+P405 - Keep cool. Store locked up.

P501 - Dispose of contents/container according to local, regional, national, and international regulations.

: EUH066 - Repeated exposure may cause skin dryness or cracking.

**EUH phrases** 

#### 2.3. Other Hazards

No additional information available

## SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

| Name                   | Product identifier   | %    | Classification according to Directive 67/548/EEC |
|------------------------|--|------|--|
| Acetone                | (CAS No) 67-64-1<br>(EC no) 200-662-2<br>(EC index no) 606-001-00-8            | 30,3 | F; R11<br>Xi; R36<br>R66<br>R67                  |
| n-Heptane              | (CAS No) 142-82-5<br>(EC no) 205-563-8<br>(EC index no) 601-008-00-2           | 17,2 | F; R11<br>Xi; R38<br>N; R50/53<br>Xn; R65<br>R67 |
| Ethyl acetate          | (CAS No) 141-78-6<br>(EC no) 205-500-4<br>(EC index no) 607-022-00-5           | 11,7 | F; R11<br>Xi; R36<br>R66<br>R67                  |
| Methyl ethyl<br>ketone | (CAS No) 78-93-3<br>(EC no) 201-159-0<br>(EC index no) 606-002-00-3            | 10,9 | F; R11<br>Xi; R36<br>R66<br>R67                  |
| tert-Butyl acetate     | (CAS No) 540-88-5<br>(EC no) 208-760-7;307-276-4<br>(EC index no) 607-026-00-7 | 9,7  | F; R11<br>R66                                    |

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| Name                   | Product identifier   | 1%   | Classification according to Bogulation (50) N  |
|------------------------|--|------|--|
| Acetone                | (CAS No) 67-64-1<br>(EC no) 200-662-2<br>(EC index no) 606-001-00-8            | 30,3 | Classification according to Regulation (EC) No. 1272/2008 [CLP] Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336  |
| n-Heptane              | (CAS No) 142-82-5<br>(EC no) 205-563-8<br>(EC index no) 601-008-00-2           | 17,2 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| Ethyl acetate          | (CAS No) 141-78-6<br>(EC no) 205-500-4<br>(EC index no) 607-022-00-5           | 11,7 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336  |
| Methyl ethyl<br>ketone | (CAS No) 78-93-3<br>(EC no) 201-159-0<br>(EC index no) 606-002-00-3            | 10,9 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336  |
| tert-Butyl acetate     | (CAS No) 540-88-5<br>(EC no) 208-760-7;307-276-4<br>(EC index no) 607-026-00-7 | 9,7  | Flam. Liq. 2, H225   |

Full text of R- and H-phrases: see section 16

### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures general

: Never give anything by mouth to an unconscious person. If you feel unwell, seek

medical advice (show the label where possible).

First-aid measures after inhalation : Using proper respiratory protection, immediately move the exposed person to fresh

air. Assure fresh air breathing. Call a physician if symptoms occur.

First-aid measures after skin contact : Remove contaminated clothing. Gently wash with plenty of soap and water

followed by rinsing with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention. First-aid measures after ingestion

: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes skin irritation. Causes serious eye irritation. Vapours may cause drowsiness and dizziness.

Symptoms/injuries after inhalation : High concentration of vapours may induce: headache, dizziness, drowsiness, nausea and vomiting.

Symptoms/injuries after skin contact : Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Ingestion is likely to be harmful or have adverse effects. Chronic symptoms : Suspected of damaging fertility or the unborn child.

## Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention.

### SECTION 5: Firefighting measures

#### 5.1. **Extinguishing media**

Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>).

Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity : Reacts violently with oxidants causing fire and explosion hazard.

#### 5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire.

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Firefighting instructions

: Use water spray or fog for cooling exposed containers. Do not get water inside

containers. Do not apply water stream directly at source of leak. Fight fire from safe

distance and protected location.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory

protection.

Other information Refer to Section 9 for flammability properties.

## **SECTION 6: Accidental release measures**

## Personal precautions, protective equipment and emergency procedures

General measures

: Use special care to avoid static electric charges. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not get in eyes, on skin, or on clothing. Do not breathe vapour or mist.

#### 6.1.1. For non-emergency personnel

Protective equipment **Emergency procedures** 

: Use appropriate personal protection equipment (PPE).

: Evacuate unnecessary personnel. 6.1.2. For emergency responders

Protective equipment

: Equip cleanup crew with proper protection.

**Emergency procedures** 

: Ventilate area. Eliminate ignition sources. Stop leak if safe to do so.

#### 6.2. **Environmental precautions**

Prevent entry to sewers and public waters.

#### Methods and material for containment and cleaning up 6.3.

For containment

: Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for cleaning up

: Clear up spills immediately and dispose of waste safely. Use only non-sparking tools.

#### Reference to other sections 6.4.

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see section 13.

### SECTION 7: Handling and storage

#### Precautions for safe handling

Additional hazards when processed

- : Handle empty containers with care because residual vapours are flammable.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or

smoking and again when leaving work. 7.2. Conditions for safe storage, including any incompatibilities

Technical measures

: Proper grounding procedures to avoid static electricity should be followed.

Storage conditions

: Store in a dry, cool and well-ventilated place. Keep container closed when not in

use. Keep in fireproof place.

Incompatible products

: Strong acids. Strong bases. Strong oxidizers.

## Specific end use(s)

No additional information available

#### SECTION 8: Exposure controls/personal protection Control parameters

| n-Heptane (142-82-5) |                              |                          |
|----------------------|------------------------------|--------------------------|
| EU                   | IOELV TWA (mg/m³)            | 2085 mg/m³               |
| EU                   | IOELV TWA (ppm)              | 500 ppm                  |
| Austria              | MAK (mg/m³)                  | 2000 mg/m³ (all isomers) |
| Austria              | MAK (ppm)                    | 500 ppm (all isomers)    |
| Austria              | MAK Short time value (mg/m³) | 8000 mg/m³ (all isomers) |
| Austria              | MAK Short time value (ppm)   | 2000 ppm (all isomers)   |
| Belgium              | Limit value (mg/m³)          | 1664 mg/m³               |
| Belgium              | Limit value (ppm)            | 400 ppm                  |
| Belgium              | Short time value (mg/m³)     | 2085 mg/m <sup>3</sup>   |
| Belgium              | Short time value (ppm)       | 500 ppm                  |
| Bulgaria             | OEL TWA (mg/m³)              | 1600 mg/m³               |
| Cyprus               | OEL TWA (mg/m³)              | 2085 mg/m <sup>3</sup>   |

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| n-Heptane (142-82-5)         |  |                                     |
|------------------------------|--|-------------------------------------|
| Cyprus                       | OEL TWA (ppm)                                      | 500 ppm                             |
| France                       | VLE (mg/m³)  | 2085 mg/m³ (restrictive limit)      |
| France                       | VLE (ppm)  | 500 ppm (restrictive limit)         |
| France                       | VME (mg/m³)  | 1668 mg/m³ (restrictive limit)      |
| France                       | VME (ppm)  | 400 ppm (restrictive limit)         |
| Germany                      | TRGS 900 Occupational exposure limit value (mg/m³) |                                     |
| Germany                      | TRGS 900 Occupational exposure limit value (ppm)   | 500 ppm (all isomers)               |
| Italy - Portugal - USA ACGIH | ACGIH TWA (ppm)                                    | 400 ppm                             |
| Italy - Portugal - USA ACGIH | ACGIH STEL (ppm)                                   | 500 ppm                             |
| Italy                        | OEL TWA (mg/m³)                                    | 2085 mg/m³                          |
| Italy                        | OEL TWA (ppm)                                      | 500 ppm                             |
| Latvia                       | OEL TWA (mg/m³)                                    | 350 mg/m <sup>3</sup>               |
| Latvia                       | OEL TWA (ppm)                                      | 85 ppm                              |
| Spain                        | VLA-ED (mg/m³)                                     | 2085 mg/m³ (indicative limit value) |
| Spain                        | VLA-ED (ppm)                                       | 500 ppm (indicative limit value)    |
| Netherlands                  | Grenswaarde TGG 8H (mg/m³)                         | 1200 mg/m³                          |
| Netherlands                  | Grenswaarde TGG 15MIN (mg/m³)                      | 1600 mg/m³                          |
| United Kingdom               | WEL TWA (mg/m³)                                    | 2085 mg/m³                          |
| United Kingdom               | WEL TWA (ppm)                                      | 500 ppm                             |
| United Kingdom               | WEL STEL (mg/m³)                                   | v.chwedlin                          |
| United Kingdom               | WEL STEL (ppm)                                     | 6255 mg/m³ (calculated)             |
| Czech Republic               | Expoziční limity (PEL) (mg/m³)                     | 1500 ppm (calculated)               |
| Denmark                      | Grænseværdie (langvarig) (mg/m³)                   | 1000 mg/m³                          |
| Denmark                      | Grænseværdie (langvarig) (mg/m²)                   | 820 mg/m³                           |
| Finland                      | HTP-arvo (8h) (mg/m³)                              | 200 ppm                             |
| inland                       | HTP-arvo (8h) (ppm)                                | 1200 mg/m³                          |
| inland                       | HTP-arvo (15 min)                                  | 300 ppm                             |
| inland                       | HTP-arvo (15 min) (ppm)                            | 2100 mg/m³                          |
| lungary                      | AK-érték   | 500 ppm                             |
| lungary                      | CK-érték   | 2000 mg/m³                          |
| reland                       |  | 8000 mg/m <sup>3</sup>              |
| reland                       | OEL (8 hours ref) (mg/m³)                          | 2085 mg/m <sup>3</sup>              |
| ithuania                     | OEL (8 hours ref) (ppm)                            | 500 ppm                             |
| ithuania                     | IPRV (mg/m³)                                       | 2085 mg/m³                          |
| ithuania                     | IPRV (ppm)   | 500 ppm                             |
| ithuania                     | TPRV (mg/m³)                                       | 3128 mg/m <sup>3</sup>              |
| Malta                        | TPRV (ppm)   | 750 ppm                             |
| 1alta                        | OEL TWA (mg/m³)                                    | 2085 mg/m <sup>3</sup>              |
| oland                        | OEL TWA (ppm)                                      | 500 ppm                             |
| oland                        | NDS (mg/m³)  | 1200 mg/m <sup>3</sup>              |
| omania                       | NDSCh (mg/m³)                                      | 2000 mg/m <sup>3</sup>              |
| omania                       | OEL TWA (mg/m³)                                    | 2085 mg/m <sup>3</sup>              |
| ovakia                       | OEL TWA (ppm)                                      | 500 ppm                             |
| ovakia                       | NPHV (priemerná) (mg/m³)                           | 2085 mg/m <sup>3</sup>              |
|                              | NPHV (priemerná) (ppm)                             | 500 ppm                             |
| veden                        | nivågränsvärde (NVG) (mg/m³)                       | 800 mg/m <sup>3</sup>               |

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| n-Heptane (142-82-5)   |  |   |
|--|--|---|
| Sweden   | nivågränsvärde (NVG) (ppm)                         | 200 ppm   |
| Sweden   | kortidsvärde (KTV) (mg/m³)                         | 1200 mg/m³  |
| Sweden   | kortidsvärde (KTV) (ppm)                           | 300 ppm   |
| Portugal   | OEL TWA (mg/m³)                                    | 2085 mg/m³ (indicative limit value)   |
| Portugal   | OEL TWA (ppm)                                      | 500 ppm (indicative limit value)  |
| Portugal   | OEL STEL (ppm)                                     | 500 ppm   |
| Ethyl acetate (141-78-6)   | T. P. C. P.  | 300 ррпп  |
| Austria  | MAK (mg/m³)  | 1050 / 3  |
| Austria  | MAK (ppm)  | 1050 mg/m <sup>3</sup>  |
| Austria  | MAK Short time value (mg/m³)                       | 300 ppm   |
| Austria  | MAK Short time value (ppm)                         | 2100 mg/m³  |
| Belgium  | Limit value (mg/m³)                                | 600 ppm   |
| Belgium  | Limit value (ppm)                                  | 1461 mg/m³  |
| Bulgaria   | OEL TWA (mg/m³)                                    | 400 ppm   |
| France   | VME (mg/m³)  | 800 mg/m <sup>3</sup>   |
| France   |  | 1400 mg/m³  |
| Germany  | VME (ppm)  | 400 ppm   |
| \$ 100 miles   100 | TRGS 900 Occupational exposure limit value (mg/m³) | 1500 mg/m³ (The risk of damage to the embryo<br>or fetus can be excluded when AGW and BGW<br>values are observed) |
| Germany  | TRGS 900 Occupational exposure limit value (ppm)   | 400 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)          |
| Italy - Portugal - USA ACGIH   | ACGIH TWA (ppm)                                    | 400 ppm   |
| Latvia   | OEL TWA (mg/m³)                                    | 200 mg/m³   |
| Spain  | VLA-ED (mg/m³)                                     | 1460 mg/m³  |
| Spain  | VLA-ED (ppm)                                       | 400 ppm   |
| United Kingdom   | WEL TWA (ppm)                                      | 200 ppm   |
| United Kingdom   | WEL STEL (ppm)                                     | 400 ppm   |
| Czech Republic   | Expoziční limity (PEL) (mg/m³)                     | 700 mg/m <sup>3</sup>   |
| Denmark  | Grænseværdie (langvarig) (mg/m³)                   | 540 mg/m³   |
| Denmark  | Grænseværdie (langvarig) (ppm)                     | 150 ppm   |
| inland   | HTP-arvo (8h) (mg/m³)                              | 1100 mg/m³  |
| inland   | HTP-arvo (8h) (ppm)                                | (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)   |
| inland   | HTP-arvo (15 min)                                  | 300 ppm<br>1800 mg/m³   |
| inland   | HTP-arvo (15 min) (ppm)                            | 500 ppm   |
| lungary  | AK-érték   |   |
| lungary  | CK-érték   | 1400 mg/m³  |
| reland   | OEL (8 hours ref) (ppm)                            | 1400 mg/m³  |
| reland   | OEL (15 min ref) (ppm)                             | 200 ppm   |
| ithuania   | IPRV (mg/m³)                                       | 400 ppm   |
| ithuania   | IPRV (ppm)   | 500 mg/m³   |
| ithuania   | NRV (mg/m³)  | 150 ppm   |
| ithuania   | NRV (mg/m²)  | 1100 mg/m³  |
| oland  | NDS (mg/m³)  | 300 ppm   |
| oland  | NDSCh (mg/m³)                                      | 200 mg/m³   |
| omania   | OEL TWA (mg/m³)                                    | 600 mg/m³   |
| omania   | OEL TWA (mg/m²)                                    | 400 mg/m³   |

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| Ethyl acetate (141-78-6)            |  |   |  |
|-------------------------------------|--|---|--|
| Romania                             | OEL STEL (mg/m³)                                   | 500 mg/m <sup>3</sup>   |  |
| Romania                             | OEL STEL (ppm)                                     | 139 ppm   |  |
| Slovakia                            | NPHV (priemerná) (mg/m³)                           | 1500 mg/m <sup>3</sup>  |  |
| Slovakia                            | NPHV (priemerná) (ppm)                             | 400 ppm   |  |
| Slovakia NPHV (Hraničná) (mg/m³)    |  | 1100 mg/m³  |  |
| Sweden nivågränsvärde (NVG) (mg/m³) |  | 500 mg/m³   |  |
| Sweden                              | nivågränsvärde (NVG) (ppm)                         | 150 ppm   |  |
| Sweden                              | kortidsvärde (KTV) (mg/m³)                         | 1100 mg/m³  |  |
| Sweden                              | kortidsvärde (KTV) (ppm)                           | 300 ppm   |  |
| Portugal                            | OEL TWA (ppm)                                      | 400 ppm   |  |
| Acetone (67-64-1)                   |  | iso bein  |  |
| EU                                  | IOELV TWA (mg/m³)                                  | 1210 (3   |  |
| EU                                  | IOELV TWA (ppm)                                    | 1210 mg/m³  |  |
| Austria                             | MAK (mg/m³)  | 500 ppm   |  |
| Austria                             | MAK (ppm)  | 1200 mg/m³  |  |
| Austria                             | MAK Short time value (mg/m³)                       | 500 ppm   |  |
| Austria                             | MAK Short time value (mg/m²)                       | 4800 mg/m³  |  |
| Belgium                             | Limit value (mg/m³)                                | 2000 ppm  |  |
| Belgium                             | Limit value (ppm)                                  | 1210 mg/m³  |  |
| Belgium                             |  | 500 ppm   |  |
| Belgium                             | Short time value (mg/m³)                           | 2420 mg/m <sup>3</sup>  |  |
| Bulgaria                            | Short time value (ppm)                             | 1000 ppm  |  |
| Bulgaria                            | OEL TWA (mg/m³)                                    | 600 mg/m <sup>3</sup>   |  |
| Cyprus                              | OEL STEL (mg/m³)                                   | 1400 mg/m³  |  |
| Cyprus                              | OEL TWA (mg/m³)                                    | 1210 mg/m <sup>3</sup>  |  |
| France                              | OEL TWA (ppm)                                      | 500 ppm   |  |
| France                              | VLE (mg/m³)  | 2420 mg/m³ (restrictive limit)                                    |  |
| France                              | VLE (ppm)  | 1000 ppm (restrictive limit)                                      |  |
| France                              | VME (mg/m³)  | 1210 mg/m³ (restrictive limit)                                    |  |
|                                     | VME (ppm)  | 500 ppm (restrictive limit)                                       |  |
| Germany                             | TRGS 900 Occupational exposure limit value (mg/m³) | 1200 mg/m <sup>3</sup>  |  |
| Germany                             | TRGS 900 Occupational exposure limit value (ppm)   | 500 ppm   |  |
| Germany                             | TRGS 903 (BGW)                                     | 80 mg/l (Medium: urine - Time: end of shift - Parameter: Acetone) |  |
| aly - Portugal - USA ACGIH          | ACGIH TWA (ppm)                                    | 500 ppm   |  |
| aly - Portugal - USA ACGIH          | ACGIH STEL (ppm)                                   | 750 ppm   |  |
| aly                                 | OEL TWA (mg/m³)                                    | 1210 mg/m³  |  |
| aly                                 | OEL TWA (ppm)                                      |   |  |
| atvia                               | OEL TWA (mg/m³)                                    | 500 ppm   |  |
| atvia                               | OEL TWA (ppm)                                      | 1210 mg/m³  |  |
| pain                                | VLA-ED (mg/m³)                                     | 500 ppm   |  |
| pain                                | VLA-ED (ppm)                                       | 1210 mg/m³ (indicative limit value)                               |  |
| etherlands                          | Grenswaarde TGG 8H (mg/m³)                         | 500 ppm (indicative limit value)                                  |  |
| etherlands                          |  | 1210 mg/m³  |  |
| nited Kingdom                       | Grenswaarde TGG 15MIN (mg/m³)                      | 2420 mg/m³  |  |
| milbaom                             | WEL TWA (mg/m³)                                    | 1210 mg/m³  |  |

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| Acetone (67-64-1)          |   |   |
|----------------------------|---|---|
| United Kingdom             | WEL STEL (mg/m³)  | 3620 mg/m <sup>3</sup>                      |
| United Kingdom             | WEL STEL (ppm)  | 1500 ppm                                    |
| Czech Republic             | Expoziční limity (PEL) (mg/m³)  | 800 mg/m <sup>3</sup>                       |
| Denmark                    | Grænseværdie (langvarig) (mg/m³)  | 600 mg/m³                                   |
| Denmark                    | Grænseværdie (langvarig) (ppm)  | 250 ppm                                     |
| Finland                    | HTP-arvo (8h) (mg/m³)   | 1200 mg/m³                                  |
| Finland                    | HTP-arvo (8h) (ppm)   | 500 ppm                                     |
| Finland                    | HTP-arvo (15 min)   | 1500 mg/m³                                  |
| Finland                    | HTP-arvo (15 min) (ppm)   | 630 ppm                                     |
| Hungary                    | AK-érték  | 1210 mg/m³                                  |
| Hungary                    | CK-érték  | 2420 mg/m³                                  |
| Ireland                    | OEL (8 hours ref) (mg/m³)   | 1210 mg/m³                                  |
| Ireland                    | OEL (8 hours ref) (ppm)   | 500 ppm                                     |
| Lithuania                  | IPRV (mg/m³)  | 1210 mg/m³                                  |
| Lithuania                  | IPRV (ppm)  | 500 ppm                                     |
| Lithuania                  | TPRV (mg/m³)  | 2420 mg/m³                                  |
| Lithuania                  | TPRV (ppm)  | 1000 ppm                                    |
| Malta                      | OEL TWA (mg/m³)   | 1210 mg/m <sup>3</sup>                      |
| Malta                      | OEL TWA (ppm)   |   |
| Poland                     | NDS (mg/m³)   | 500 ppm                                     |
| Poland                     | NDSCh (mg/m³)   | 600 mg/m³                                   |
| Romania                    | OEL TWA (mg/m³)   | 1800 mg/m³                                  |
| Romania                    | OEL TWA (ppm)   | 1210 mg/m³                                  |
| Slovakia                   | NPHV (priemerná) (mg/m³)  | 500 ppm                                     |
| Slovakia                   | NPHV (priemerná) (ppm)  | 1210 mg/m³                                  |
| lovakia                    | NPHV (Hraničná) (mg/m³)   | 500 ppm                                     |
| weden                      | nivågränsvärde (NVG) (mg/m³)  | 2420 mg/m³                                  |
| weden                      | nivågränsvärde (NVG) (mg/m²)  | 600 mg/m <sup>3</sup>                       |
| weden                      |   | 250 ppm                                     |
| weden                      | kortidsvärde (KTV) (mg/m³)  | 1200 mg/m <sup>3</sup>                      |
| ortugal                    | kortidsvärde (KTV) (ppm)  OEL TWA (mg/m³)   | 500 ppm                                     |
| ortugal                    | OEL TWA (mg/m²)   | 1210 mg/m³ (indicative limit value)         |
| ortugal                    | Victoria de la Contraction de | 500 ppm (indicative limit value)            |
| ortugal                    | OEL STEL (ppm)  | 750 ppm                                     |
| lethyl ethyl ketone (78-93 | OEL chemical category (PT)  | A4 - Not Classifiable as a Human Carcinogen |
| J                          |   |   |
|                            | IOELV TWA (mg/m³)   | 600 mg/m <sup>3</sup>                       |
|                            | IOELV TWA (ppm)   | 200 ppm                                     |
| J                          | IOELV STEL (mg/m³)  | 900 mg/m <sup>3</sup>                       |
| J                          | IOELV STEL (ppm)  | 300 ppm                                     |
| ustria                     | MAK (mg/m³)   | 295 mg/m <sup>3</sup>                       |
| ıstria                     | MAK (ppm)   | 100 ppm                                     |
| ıstria                     | MAK Short time value (mg/m³)  | 590 mg/m³                                   |
| ıstria                     | MAK Short time value (ppm)  | 200 ppm                                     |
| lgium                      | Limit value (mg/m³)   | 600 mg/m <sup>3</sup>                       |
| lgium                      | Limit value (ppm)   | 200 ppm                                     |
| lgium                      | Short time value (mg/m³)  | 900 mg/m³                                   |
| lgium                      | Short time value (ppm)  | 300 ppm                                     |

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| Methyl ethyl ketone (78-93-3 | )  |  |
|------------------------------|--|--|
| Bulgaria                     | OEL TWA (mg/m³)                                    | 590 mg/m <sup>3</sup>  |
| Bulgaria                     | OEL STEL (mg/m³)                                   | 885 mg/m³  |
| Cyprus                       | OEL TWA (mg/m³)                                    | 600 mg/m³  |
| Cyprus                       | OEL TWA (ppm)                                      | 200 ppm  |
| Cyprus                       | OEL STEL (mg/m³)                                   | 900 mg/m³  |
| Cyprus                       | OEL STEL (ppm)                                     | 300 ppm  |
| France                       | VLE (mg/m³)  | 900 mg/m³ (restrictive limit)  |
| France                       | VLE (ppm)  | 300 ppm (restrictive limit)  |
| France                       | VME (mg/m³)  | 600 mg/m³ (restrictive limit)  |
| France                       | VME (ppm)  | 200 ppm (restrictive limit)  |
| Germany                      | TRGS 900 Occupational exposure limit value (mg/m³) | 600 mg/m³ (The risk of damage to the embryo<br>or fetus can be excluded when AGW and BGW<br>values are observed) |
| Germany                      | TRGS 900 Occupational exposure limit value (ppm)   | 200 ppm (The risk of damage to the embryo of fetus can be excluded when AGW and BGW values are observed)         |
| Germany                      | TRGS 903 (BGW)                                     | 5 mg/l (Medium: urine - Time: end of shift - Parameter: 2-Butanone)  |
| Italy - Portugal - USA ACGIH | ACGIH TWA (ppm)                                    | 200 ppm  |
| Italy - Portugal - USA ACGIH | ACGIH STEL (ppm)                                   | 300 ppm  |
| Italy                        | OEL TWA (mg/m³)                                    | 600 mg/m³  |
| Italy                        | OEL TWA (ppm)                                      | 200 ppm  |
| Italy                        | OEL STEL (mg/m³)                                   | 900 mg/m³  |
| Italy                        | OEL STEL (ppm)                                     | 300 ppm  |
| Latvia                       | OEL TWA (mg/m³)                                    | 200 mg/m <sup>3</sup>  |
| Latvia                       | OEL TWA (ppm)                                      | 67 ppm   |
| Spain                        | VLA-ED (mg/m³)                                     | 600 mg/m³ (indicative limit value)   |
| Spain                        | VLA-ED (ppm)                                       | 200 ppm (indicative limit value)   |
| Spain                        | VLA-EC (mg/m³)                                     | 900 mg/m³  |
| Spain                        | VLA-EC (ppm)                                       | 300 ppm  |
| Netherlands                  | Grenswaarde TGG 8H (mg/m³)                         | 590 mg/m³  |
| Netherlands                  | Grenswaarde TGG 15MIN (mg/m³)                      | 900 mg/m³  |
| Jnited Kingdom               | WEL TWA (mg/m³)                                    | 600 mg/m³  |
| Jnited Kingdom               | WEL TWA (ppm)                                      | 200 ppm  |
| Inited Kingdom               | WEL STEL (mg/m³)                                   | 899 mg/m³  |
| Inited Kingdom               | WEL STEL (ppm)                                     | 300 ppm  |
| zech Republic                | Expoziční limity (PEL) (mg/m³)                     | 600 mg/m <sup>3</sup>  |
| enmark                       | Grænseværdie (langvarig) (mg/m³)                   | 145 mg/m³  |
| enmark                       | Grænseværdie (langvarig) (ppm)                     | 50 ppm   |
| inland                       | HTP-arvo (15 min)                                  | 300 mg/m <sup>3</sup>  |
| inland                       | HTP-arvo (15 min) (ppm)                            | 100 ppm  |
| ungary                       | AK-érték   | 600 mg/m <sup>3</sup>  |
| ungary                       | CK-érték   | 900 mg/m³  |
| eland                        | OEL (8 hours ref) (mg/m³)                          | 600 mg/m <sup>3</sup>  |
| eland                        | OEL (8 hours ref) (ppm)                            | 200 ppm  |
| eland                        | OEL (15 min ref) (mg/m3)                           | 900 mg/m³  |
| eland                        | OEL (15 min ref) (ppm)                             | 300 ppm  |
| thuania                      | IPRV (mg/m³)                                       | 600 mg/m³  |

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| Methyl ethyl ketone (78-93    |  |  |
|-------------------------------|--|--|
| Lithuania                     | IPRV (ppm)   | 200 ppm  |
| Lithuania                     | TPRV (mg/m³)                                       | 900 mg/m³  |
| Lithuania                     | TPRV (ppm)   | 300 ppm  |
| Malta                         | OEL TWA (mg/m³)                                    | 600 mg/m <sup>3</sup>  |
| Malta                         | OEL TWA (ppm)                                      | 200 ppm  |
| Malta                         | OEL STEL (mg/m³)                                   | 900 mg/m³  |
| Malta                         | OEL STEL (ppm)                                     | 300 ppm  |
| Poland                        | NDS (mg/m³)  | 450 mg/m³  |
| Poland                        | NDSCh (mg/m³)                                      | 900 mg/m³  |
| Romania                       | OEL TWA (mg/m³)                                    | 600 mg/m <sup>3</sup>  |
| Romania                       | OEL TWA (ppm)                                      | 200 ppm  |
| Romania                       | OEL STEL (mg/m³)                                   | 900 mg/m³  |
| Romania                       | OEL STEL (ppm)                                     | 300 ppm  |
| Slovakia                      | NPHV (priemerná) (mg/m³)                           | 600 mg/m³  |
| Slovakia                      | NPHV (priemerná) (ppm)                             | 200 ppm  |
| Slovakia                      | NPHV (Hraničná) (mg/m³)                            | 900 mg/m³  |
| Sweden                        | nivågränsvärde (NVG) (mg/m³)                       | 150 mg/m³  |
| Sweden                        | nivågränsvärde (NVG) (ppm)                         | 50 ppm   |
| Sweden                        | kortidsvärde (KTV) (mg/m³)                         | 300 mg/m³  |
| Sweden                        | kortidsvärde (KTV) (ppm)                           |  |
| Portugal                      | OEL TWA (mg/m³)                                    | 100 ppm  |
| Portugal                      | OEL TWA (ppm)                                      | 600 mg/m³ (indicative limit value)   |
| Portugal                      | OEL STEL (mg/m³)                                   | 200 ppm (indicative limit value)   |
| Portugal                      | OEL STEL (ppm)                                     | 900 mg/m³ (indicative limit value)   |
| tert-Butyl acetate (540-88-5) | (Pp.III)   | 300 ppm (indicative limit value)   |
| Austria                       | MAK (mg/m³)  |  |
| Austria                       | MAK (ppm)  | 96 mg/m³   |
| Austria                       | MAK Short time value (mg/m³)                       | 20 ppm   |
| Austria                       | MAK Short time value (mg/m³)                       | 96 mg/m³   |
| Belgium                       | Limit value (mg/m³)                                | 20 ppm   |
| elgium                        | Limit value (mg/m-)                                | 964 mg/m³  |
| rance                         | VME (mg/m³)  | 200 ppm  |
| rance                         | VME (ppm)  | 950 mg/m³  |
| ermany                        |  | 200 ppm  |
| •                             | TRGS 900 Occupational exposure limit value (mg/m³) | 200 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed) |
| Germany                       | TRGS 900 Occupational exposure limit value (ppm)   | 42 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)    |
| aly - Portugal - USA ACGIH    | ACGIH TWA (ppm)                                    | 200 ppm  |
| atvia                         | OEL TWA (mg/m³)                                    | 200 mg/m³  |
| pain                          | VLA-ED (mg/m³)                                     | 966 mg/m <sup>3</sup>  |
| pain                          | VLA-ED (ppm)                                       | 200 ppm  |
| nited Kingdom                 | WEL TWA (mg/m³)                                    | 966 mg/m³  |
| nited Kingdom                 | WEL TWA (ppm)                                      | 200 ppm  |
| nited Kingdom                 | WEL STEL (mg/m³)                                   | 1210 mg/m <sup>3</sup>   |
| nited Kingdom                 | WEL STEL (ppm)                                     | 250 ppm  |

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| tert-Butyl acetate (540-8 | 88-5)                            |            |  |
|---------------------------|----------------------------------|------------|--|
| Czech Republic            | Expoziční limity (PEL) (mg/m³)   | 950 mg/m³  |  |
| Denmark                   | Grænseværdie (langvarig) (mg/m³) | 710 mg/m³  |  |
| Denmark                   | Grænseværdie (langvarig) (ppm)   | 150 ppm    |  |
| Finland                   | HTP-arvo (8h) (mg/m³)            | 720 mg/m³  |  |
| Finland                   | HTP-arvo (8h) (ppm)              | 150 ppm    |  |
| Finland                   | HTP-arvo (15 min)                | 960 mg/m³  |  |
| Finland                   | HTP-arvo (15 min) (ppm)          | 200 ppm    |  |
| Ireland                   | OEL (8 hours ref) (mg/m³)        | 950 mg/m³  |  |
| Ireland                   | OEL (8 hours ref) (ppm)          | 200 ppm    |  |
| Ireland                   | OEL (15 min ref) (mg/m3)         | 1190 mg/m³ |  |
| Ireland                   | OEL (15 min ref) (ppm)           | 250 ppm    |  |
| Poland                    | NDS (mg/m³)                      | 900 mg/m³  |  |
| Poland                    | NDSCh (mg/m³)                    | 900 mg/m³  |  |
| Slovakia                  | NPHV (priemerná) (mg/m³)         | 96 mg/m³   |  |
| Slovakia                  | NPHV (priemerná) (ppm)           | 20 ppm     |  |
| Slovakia                  | NPHV (Hraničná) (mg/m³)          | 384 mg/m³  |  |
| Sweden                    | nivågränsvärde (NVG) (mg/m³)     | 500 mg/m³  |  |
| Sweden                    | nivågränsvärde (NVG) (ppm)       | 100 ppm    |  |
| Sweden                    | kortidsvärde (KTV) (mg/m³)       | 700 mg/m³  |  |
| Sweden                    | kortidsvärde (KTV) (ppm)         | 150 ppm    |  |
| Portugal                  | OEL TWA (ppm)                    | 200 ppm    |  |

#### Exposure controls

Appropriate engineering controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Gas detectors should be used when flammable gases/vapours may be released. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated above. All electrical equipment should comply with the National Electric Code. Ensure all national/local regulations are observed.

Personal protective equipment

: Full protective flameproof clothing. Protective goggles. Gloves. Insufficient ventilation: wear respiratory protection.









Materials for protective clothing

Hand protection Eye protection

Skin and body protection

Respiratory protection

: Wear fire/flame resistant/retardant clothing.

: Wear chemically resistant protective gloves.

: Chemical goggles or safety glasses.

: Wear suitable protective clothing.

: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

Other information : When using, do not eat, drink or smoke.

## SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties 9.1.

Physical state : Liquid Colour : Amber.

Odour : Strong fruity odor. Odour threshold : No data available : No data available Relative evaporation rate (butylacetate=1) : No data available

Melting point : No data available

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Freezing point : No data available Boiling point

: > 35 °C

Flash point : No data available Auto-ignition temperature : No data available Decomposition temperature : No data available Flammability (solid, gas) : No data available Vapour pressure : No data available Relative vapour density at 20 °C : > 1 (heavier than air) Relative density : 0,82 (water = 1) Solubility : Insoluble in water. Partition coefficient: n-octanol/water

: No data available Viscosity : No data available

Explosive properties : No data available Oxidising properties : No data available **Explosive limits** : 1 - 12 vol %

9.2. Other information

VOC content : 40 % (2.77 lbs/gal or 333 g/l)

## SECTION 10: Stability and reactivity

#### Reactivity

Reacts violently with oxidants causing fire and explosion hazard.

#### 10.2. **Chemical stability**

Stable under recommended handling and storage conditions (see section 7).

### Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Ignition sources.

#### 10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

### 10.6. Hazardous decomposition products

Carbon oxides (CO, CO<sub>2</sub>).

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

| Acute toxicity       | : Not classified |  |
|----------------------|------------------|--|
| n-Heptane (142-82-5) |                  |  |
| LD50 oral rat        | > 5000 mg/kg     |  |
| I DEO dormal rabbit  |                  |  |

| 11 Heptane (142-02-3)      |                               |
|----------------------------|-------------------------------|
| LD50 oral rat              | > 5000 mg/kg                  |
| LD50 dermal rabbit         | 3000 mg/kg                    |
| LC50 inhalation rat (mg/l) | 103 g/m³ (Exposure time: 4 h) |
| ATE CLP (dermal)           | 3000,000 mg/kg bodyweight     |
| ATE CLP (vapours)          | 103,000 mg/l/4h               |
| ATE CLP (dust,mist)        | 103,000 mg/l/4h               |
| Ethyl acetate (141-78-6)   |                               |

#### Ethyl acetate (141-78-6)

| LD50 oral rat      | 5620 mg/kg                |
|--------------------|---------------------------|
| LD50 dermal rabbit | > 20 ml/kg                |
| ATE CLP (oral)     | 5620,000 mg/kg bodyweight |

| Acetone (67-64-1)          |                            |
|----------------------------|----------------------------|
| LD50 oral rat              | 5800 mg/kg                 |
| LD50 dermal rabbit         | 15688 mg/kg                |
| LC50 inhalation rat (mg/l) | 44 g/m³                    |
| ATE CLP (oral)             | 5800,000 mg/kg bodyweight  |
| ATE CLP (dermal)           | 15688,000 mg/kg bodyweight |
| ATE CLP (vapours)          | 44,000 mg/l/4h             |

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| Acetone (67-64-1)             |   |  |
|-------------------------------|---|--|
| ATE CLP (dust,mist)           | 44,000 mg/l/4h                            |  |
| Methyl ethyl ketone (78-93-3) | 7,55,77,11                                |  |
| LD50 oral rat                 | 2054 mg/kg                                |  |
| LD50 dermal rat               | > 10 ml/kg                                |  |
| LC50 inhalation rat (mg/l)    | 23500 mg/m³ (Exposure time: 8 h)          |  |
| ATE CLP (oral)                | 2054,000 mg/kg bodyweight                 |  |
| ATE CLP (vapours)             | 23500,000 mg/l/4h                         |  |
| ATE CLP (dust,mist)           | 23500,000 mg/l/4h                         |  |
| tert-Butyl acetate (540-88-5) |   |  |
| LD50 oral rat                 | 4500 mg/kg                                |  |
| D50 dermal rabbit             | > 2000                                    |  |
| .C50 inhalation rat (mg/l)    | > 2230 mg/m³ (Exposure time: 4 h)         |  |
| C50 inhalation rat (ppm)      | 5157 ppm/4h                               |  |
| ATE CLP (oral)                | 4500,000 mg/kg bodyweight                 |  |
| ATE CLP (gases)               |   |  |
| rin corrosion/irritation      | 5157,000 ppmv/4h : Causes skin irritation |  |

Serious eye damage/irritation

Respiratory or skin sensitisation

Germ cell mutagenicity Carcinogenicity

Reproductive toxicity

Specific target organ toxicity (single exposure) Specific target organ toxicity (repeated exposure)

Aspiration hazard

: Causes skin irritation.

: Causes serious eye irritation.

: Not classified

: Not classified : Not classified

: Not classified

May cause drowsiness or dizziness. : Not classified

: Not classified

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general

: Toxic to aquatic life with long lasting effects.

|                        | . Tokic to aquatic life with long lasting effects.   |
|------------------------|--|
| n-Heptane (142-82-     | 5)   |
| LC50 fishes 1          | 375,0 mg/l (Exposure time: 96 h - Species: Cichlid fish)   |
| Ethyl acetate (141-7   | 8-6)   |
| LC50 fishes 1          | 220 - 250 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])   |
| EC50 Daphnia 1         | 560 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])   |
| LC50 fish 2            | 484 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])   |
| Acetone (67-64-1)      | . The state of the |
| LC50 fishes 1          | 4144,846 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)   |
| EC50 Daphnia 1         | 1679,66 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])   |
| LC50 fish 2            | 6210 (6210 - 8120) mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])  |
| EC50 Daphnia 2         | 12600 (12600 - 12700) mg/l (Exposure time: 48 h - Species: Daphnia magna)  |
| Methyl ethyl ketone    |  |
| LC50 fishes 1          | 3130 (3130 - 3320) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])  |
| EC50 Daphnia 1         | 520 mg/l (Exposure time: 48 h - Species: Daphnia magna)  |
| EC50 Daphnia 2         | 5091 mg/l (Exposure time: 48 h - Species: Daphnia magna)   |
| tert-Butyl acetate (54 |  |
| LC50 fishes 1          | 296 - 362 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])   |
| 22 2                   | in a final f |

#### 12.2. Persistence and degradability

| Acetone (67-64-1)             |                                 |  |
|-------------------------------|---------------------------------|--|
| Persistence and degradability | Readily biodegradable in water. |  |

Safety Data Sheet

according to Regulation (EC) No. 453/2010

| 12.3. | Bioaccumulative |           |
|-------|-----------------|-----------|
|       | bioaccumulative | potential |

| n-Heptane (142-82-5)       |       |  |
|----------------------------|-------|--|
| Log Pow                    | 4,66  |  |
| Ethyl acetate (141-78-6)   |       |  |
| BCF fish 1                 | 30    |  |
| Log Pow                    | 0,6   |  |
| Acetone (67-64-1)          |       | the state of the s |
| BCF fish 1                 | 0,69  |  |
| Log Kow                    | -0,24 |  |
| Methyl ethyl ketone (78-9  |       |  |
| og Pow                     | 0,29  |  |
| ert-Butyl acetate (540-88- |       |  |
| og Pow                     | 1,38  |  |
| 2.4. Mobility in soil      | 1,50  |  |

No additional information available

## Results of PBT and vPvB assessment

Acetone (67-64-1)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### 12.6. Other adverse effects

Other information

: Avoid release to the environment.

## **SECTION 13: Disposal considerations**

### Waste treatment methods

Waste disposal recommendations

: Dispose of waste material in accordance with all local, regional, national, and

international regulations.

Additional information

: Handle empty containers with care because residual vapours are flammable. RCRA Waste Number: D001.

## **SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR)

: 1133

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)

: ADHESIVES

Transport document description (ADR)

: UN 1133 ADHESIVES, 3, I, (D/E)

### 14.3. Transport hazard class(es)

Class (ADR)

: 3

Hazard labels (ADR)



#### 14.4. Packing group

Packing group (ADR)

: 11

#### 14.5. Environmental hazards

Dangerous for the environment



Safety Data Sheet

according to Regulation (EC) No. 453/2010

#### Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler : 33

No.)

Classification code (ADR)

Orange plates

500ml

: 127;128

Transport category (ADR)

Tunnel restriction code (ADR) : D/E Limited quantities (ADR) Excepted quantities (ADR) : E3 EAC code : •3YE

14.6.2. Transport by sea

MFAG-No

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## **SECTION 15: Regulatory information**

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

| 3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008   | Tanner's Bond<br>Craftsman<br>Contact Cement |
|--|--|
| 40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. | Tanner's Bond<br>Craftsman<br>Contact Cement |

Contains no REACH candidate substance

**VOC** content

: 40 % (2.77 lbs/gal or 333 g/l)

15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### **SECTION 16: Other information**

Revision date: 03/10/2014

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December Data sources

2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives

67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Full text of R-, H- and EUH-phrases:

| Aquatic Acute 1   | Hazardous to the aquatic environment — Acute Hazard, Category 1        |
|-------------------|--|
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1      |
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2      |
| Asp. Tox. 1       | Aspiration hazard, Category 1  |
| Eye Irrit. 2      | Serious eye damage/eye irritation, Category 2                          |
| Flam. Liq. 2      | Flammable liquids, Category 2  |
| Skin Irrit. 2     | Skin corrosion/irritation, Category 2                                  |
| STOT SE 3         | Specific target organ toxicity — Single exposure, Category 3, Narcosis |
| H225              | Highly flammable liquid and vapour                                     |
| H304              | May be fatal if swallowed and enters airways                           |
| H315              | Causes skin irritation   |

Safety Data Sheet

according to Regulation (EC) No. 453/2010

| H319   | Causes serious eye irritation   |
|--------|---|
| H336   | May cause drowsiness or dizziness   |
| H400   | Very toxic to aquatic life  |
| H410   | Very toxic to aquatic life with long lasting effects  |
| H411   | Toxic to aquatic life with long lasting effects   |
| R11    | Highly flammable  |
| R36    | Irritating to eyes  |
| R36/38 | Irritating to eyes and skin   |
| R38    | Irritating to skin  |
| R50/53 |   |
| R51/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment   |
| R65    | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  Harmful: may cause lung damage if swallowed |
| R66    | Repeated exposure may cause skin dryness or cracking  |
| R67    | Vapours may cause drowsiness and dizziness  |
| F      | Highly flammable  |
| N      | Dangerous for the environment   |
| Xi     | Irritant  |
| Xn     | Harmful   |

SDS EU (REACH Annex II)

The information above is believed to be accurate and represents the information currently available to us. We however, make no warranty of merchantability or any other warranty, express or implied, with respect to this information, and we assume no liability resulting from its use.