1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE OF THE COMPANY

Trade name: HS FILLER HARDENER STANDARD 0540 4:1 900 ML
Trade reference: 5009-1159

Relevant identified uses of the substance or mixture and uses advised against:
Use: The hardener for acrylic filler. For professional use in car refinish.
Uses advised against: Other than those listed above.
Application of the substance / the preparation: Hardening agent/ Curing agent

Manufacturer/Supplier:
CAR REPAIR SYSTEM S.A.
Centro de Empresas Granada
Polígono Industrial La Ermita
Edif. B - 2ª Planta - Oficinas 35 y 38
18230 ATARFE (Granada) – SPAIN

Emergency telephone number of the company and/or of an authorised advisory centre: 00.34.902.180.470
World directory of poisons centres: www.who.int/gho/phe/chemical_safety/poisons_centres/en/

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classification according to Directive 67/548/EEC

Xn Harmful
R 20 Harmful by inhalation

Xi Irritant
R 37 Irritating to respiratory system

R 10 Flammable
R 43 May cause sensitisation by skin contact
R 66 Repeated exposure may cause skin dryness or cracking

Information concerning particular hazards for human and environmental:
Vapours of product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration. Heightened risk of fire and danger of explosion at accumulation in lower-lying or closed rooms. Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided. At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent. Has a narcotizing effect.

The product has to be labeled due to the calculation procedure of the “General Classification guideline for preparations of the EU” in the latest valid version.
Labelling elements
Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives/ Ordinance on Hazardous Materials

Code letter and hazard designation of product:
Xn Harmful
Risk phrases:
R 10 Flammable.
R 20 Harmful by inhalation.
R 37 Irritating to respiratory system.
R 43 May cause sensitisation by skin contact.
R 66 Repeated exposure may cause skin dryness or cracking.

Safety phrases:
S 23 Do not breathe fumes/aerosol.
S 24 Avoid contact with skin.
S 36/37 Wear suitable protective clothing and gloves.
S 51 Use only in well ventilated areas.

Hazard-determining components of labelling: Hexamethylene diisocyanate homopolymer

Special labelling of certain preparations:
Contains isocyanates. See information supplied by the manufacturer.

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description: Mixture of substance listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS: 28182-81-2</th>
<th>hexamethylene diisocyanate homopolymer</th>
<th>Xn, Xi; R 20-37-43</th>
<th>Acute Tox. 4, H332; Skin Sens. 1, H317, STOT SE 3, H335</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 500-060-2</td>
<td></td>
<td>25-50%</td>
<td></td>
</tr>
<tr>
<td>REG NO: 01-2119485796-17</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>EINECS: 204-658-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REG NO: 01-2119485493-29</td>
<td></td>
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</table>

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</thead>
<tbody>
<tr>
<td>EINECS: 203-603-9</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>REG NO: 01-2119475791-29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 822-06-0</th>
<th>dimocyanian heksano-1,6-diylu</th>
<th>T, Xi; R 23-36/37/38-42/43</th>
<th>Acute Tox. 3, H331; Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335</th>
</tr>
</thead>
<tbody>
<tr>
<td>WE: 212-485-8</td>
<td></td>
<td></td>
<td>&lt;0,1%</td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed risk phrases refer to section 16.

4. FIRST AID MEASURES

Description of first aid measures

General information:
Personal protection for the First Aider. Take affected persons out of danger area and lay down. In case of irregular breathing or respiratory arrest provide artificial respiration. Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:
Supply fresh air. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**
Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor. Use skin protection cream for skin protection.

**After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:**
Rinse out mouth. Do not induce vomiting; call for medical immediately.

**Most important symptoms and effects, both acute and delayed**
Vapors are harmful to mucous membranes of the respiratory system. They cause pains and the giddiness, nausea, vomiting. When significant concentrations of vapor or directly entering the eyes may experience mild irritation, redness, tearing, burning, pain. Product ingestion causes abdominal pain, vomiting. May experience disorders of the nervous system, chronic conjunctivitis, and sometimes smell disorders, inflammation of upper respiratory tract with pain in the throat, chronic skin inflammation.

**Indication of any immediate medical attention and special treatment needed**
The workplace should be equipped with a shower and eye wash position.

### 5. FIREFIGHTING MEASURES

**Extinguishing media**
Suitable extinguishing agents:
- CO2, powder or water spray. Fight larger with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet.

Special hazards arising from the substance or mixture:
- Nitrogen oxides (NOX).
- Hydrogen cyanide (HCN).
- Carbon monoxide and carbon dioxide.
- During heating or in case of fire poisonous gases are produced.
- Can form explosive gas-air mixtures.

**Advice for firefighters**
- Additional information:
  - Cool endangered receptacles with water spray.
  - Remove undamaged containers from the danger zone.
  - Collect contaminated fire fighting water separately. It must not enter the sewage system.
  - Dispose of fire debris and contaminated fire fighting water in accordance with official regulation.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Person-related safety precautions:**
Wear protective equipment. Keep unprotected person away. Ensure adequate ventilation. Keep away from ignition sources. Use respiratory protective device against the effects of fumes/dust/aerosol. Avoid contact with the eyes and skin.

**Environmental precautions**
Do not allow to enter sewers/ surface or ground water. Inform respective authorities in case of seepage into water course or sewage system.

**Methods and material for containment and cleaning up**
Ensure adequate ventilation. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
7. HANDLING AND STORAGE

Precautions for safe handling
Keep receptacles tightly sealed. Ensure good ventilation/exhaustion at the workplace. Do not inhale gases/fumes/aerosols. Avoid contact with the eyes and skin. Use respiratory protective device against the effects of fumes/dust/aerosol.

Adhere to the workplace limit values and/or other threshold values.

Information about fire- and explosion protector:
Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration. Fumes can combine with air to from an explosive mixture. Keep ignition sources away – Do not smoke. Anti-explosion protection required. Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities
Storage:

Requirements to be met by storerooms and receptacles:
Store only in original receptacle. Store in a cool location.

Information about storage in use common storage facility:
Store away from foodstuffs. Pls. refer to section 10

Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles. Protect from heat and direct sunlight. Store receptacle in a well ventilated areas. Protect from humidity and water. Keep ignition sources away - Do not smoke.

Specific end use(s)
No information about the applications other than those mentioned in section 1.

8. EXPOSURE CONTROLS/PERSONAL PROTECTIONS

Additional information about design of technical facilities. No further data: see item 7

Control parameters

<table>
<thead>
<tr>
<th>Ingredients with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>26182-81-2 hexamethylene diisocyanate homopolymer; 822-06-0 diisocyanian heksano-1,6-diylu</td>
</tr>
<tr>
<td>WEL (Great Britain)</td>
</tr>
<tr>
<td>Short-term value: 0,07 mg/m3</td>
</tr>
<tr>
<td>Long-term value: 0,02 mg/m3</td>
</tr>
<tr>
<td>Sen; as - NCO</td>
</tr>
<tr>
<td>123-86-4 n-butyl acetate</td>
</tr>
<tr>
<td>WEL (Great Britain)</td>
</tr>
<tr>
<td>Short-term value: 966 mg/m3, 200 ppm</td>
</tr>
<tr>
<td>Long-term value: 724 mg/m3, 150 ppm</td>
</tr>
<tr>
<td>108-65-6 2-methoxy-1-methylethyl acetate</td>
</tr>
<tr>
<td>WEL (Great Britain)</td>
</tr>
<tr>
<td>Short-term value: 548 mg/m3, 100 ppm</td>
</tr>
<tr>
<td>Long-term value: 274 mg/m3, 50 ppm</td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td>Short-term value: 550 mg/m3, 100 ppm</td>
</tr>
<tr>
<td>Long-term value: 275 mg/m3, 50 ppm</td>
</tr>
<tr>
<td>Additional information: The lists valid during the making were used as basis.</td>
</tr>
</tbody>
</table>
hexamethylene diisocyanate homopolymer
DNEL - workers, long-term - inhalation, local effects - 0,5 mg/m3
DNEL - workers, short-term - inhalation, local effects - 1,0 mg/m3
PNEC - freshwater environment - 0,127 mg/l
PNEC - marine environment - 0,0127 mg/l
PNEC - sewage treatment plants - 38,28 mg/l
PNEC - soil 53182 mg/kg
PNEC - sediment 266700 mg/kg
n-butyl acetate:
DNEL - workers, long-term - dermal - 7 mg/kg bw/day
DNEL - workers, long-term - inhalation - 48 mg/m3
PNEC - freshwater environment - 0,18 mg/l
PNEC - marine environment - 0,018 mg/l
PNEC - intermittent releases - 0,36 mg/l
PNEC - sewage treatment plants - 35,6 mg/l
PNEC - freshwater sediment environment - 0,981 mg/kg
PNEC - marine sediment environment - 0,981 mg/l
PNEC - soil - 0,0903 mg/kg
2-methoxy-1-methylethyl acetate:
DNEL - workers, long-term - inhalation, systemic effects - 275 mg/m3
DNEL - workers, long-term - dermal, systemic effects - 153,5 mg/kg bw
PNEC - freshwater environment - 0,635 mg/l
PNEC - freshwater sediment environment - 3,29 mg/l
PNEC - marine sediment environment - 0,329 mg/l
PNEC - soil 0,29 mg/kg
PNEC - sewage treatment plants - 100 mg/l

Exposure controls
Personal protective equipment:
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Do not eat, drink, smoke or sniff while working. Do not inhale gases/ fumes/ aerosols. Avoid contact with the eyes and skin. Wash hands before breaks and at the end of work.
Respiratory protection:
Adhere to the workplace limit values and / or other threshold values. Use respiratory protective device against the effects of fumes/dust/aerosol. Use suitable respiratory protective device in case of insufficient ventilation. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or larger exposures use self-contained respiratory protection device. Filter A/P2.
Protection of hands:
To avoid skin problems reduce the wearing of gloves to the required minimum. Check the permeability prior to each new use of the gloves. The glove material has to be impermeable and resistant to the product / the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. Wear suitable gloves tested to EN 374.
Material of gloves:
The selection of the suitable gloves does not only depend on the material but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Tightly sealed goggles.

**Body protection:** Protective work clothing.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Appearance**
- Form: Fluid
- Color: Colorless
- Odour: Characteristic
- Odour threshold: Undetermined
- pH: Undetermined
- Melting point/freezing point: Undetermined
- Initial boiling point and boiling range: Undetermined
- Flash point: >23 °C
- Evaporation rate: Undetermined
- Flammability: The mixture is flammable

**Upper/lower flammability or explosive limits:**
- Lower: 1,5 VOL %
- Upper: 10,8 VOL %

**Vapour pressure:** Undetermined

**Vapour density:** Undetermined

**Relative density:** ~ 1,0

**Solubility(ies):** Not miscible or difficult to mix in water. Reacts with water.

**Partition coefficient:** n-octanol/water Undetermined

**Auto-ignition temperature:** 315 °C

**Decomposition temperature:** Undetermined

**Viscosity:** < 40 s (ISO 6 mm)

**Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures is possible

**Oxidising properties:** Undetermined

**Other information:** Not available

10. **STABILITY AND REACTIVITY**

**Reactivity**
No reactivity if used according to specifications.

**Chemical stability**
Stable under normal conditions of use and storage.

**Possibility of hazardous reactions**
Fumes can combine with air to form an explosive mixture.

**Conditions to avoid**
High temperature, ignition sources, open flame.

**Incompatible materials**

**Hazardous decomposition products**
Carbon monoxide and carbon dioxide, nitrogen oxides (NOX), hydrogen cyanide (HCN). Formation of toxic gases is possible during heating or in case of fire.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

<table>
<thead>
<tr>
<th>LD/ LC50 values relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-86-4 n-butyl acetate</td>
</tr>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td>10760 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td>&gt; 14000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
<tr>
<td>LC50/4 h</td>
</tr>
<tr>
<td>&gt; 21,0 mg/l (rat)</td>
</tr>
</tbody>
</table>

Primary irritant effect:
On the skin: Irritant to skin and mucous membranes. At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.
On the eye: Irritating effect.

Additional toxicological information:
Vapours may cause drowsiness and dizziness. Has a narcotizing effect. Danger through skin adsorption.
Sensitisation: May cause sensitisation by skin contact.

12. ECOLOGICAL INFORMATION

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

Persistence and degradability
hexamethylene diisocyanate homopolymer - not readily biodegradable
n-butyl acetate - readily biodegradable
2-methoxy-1-methylethyl acetate - readily biodegradable

Bioaccumulative potential
Octanol-water partition coefficient (Kow):
hexamethylene diisocyanate homopolymer: 9,81
n-butyl acetate: 2,3
2-methoxy-1-methylethyl acetate: 0,43

Bioconcentration factor (BCF):
hexamethylene diisocyanate homopolymer: BCF = 3,2
n-butyl acetate: BCF =15,3

Mobility in soil
No further relevant information available.

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

Other adverse effects
No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:
Recommendation:
Must not to disposal together with household garbage. Do not allow product to reach sewage system.
Disposal was be made according to official regulations.
European waste catalogue
08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

UN-Number: 1263
UN proper shipping name: 1263 PAINT RELATED MATERIAL
Transport hazard class(es): 3
Packaging group: III
Hazard label: 3
Environmental hazards: The product does not pose a risk to the environment in accordance with the criteria in the UN Model Regulations.
Special precautions for user: Warning: Flammable liquids. Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations:
Information about limitation of use:
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
Chemical safety assessment:
A Chemical Safety Assessment has been carried out for hexamethylene diisocyanate homopolymer.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant R-phrases:
R 10 Flammable.
R 20 Harmful by inhalation.
R 23 Toxic by inhalation.
R 37 Irritating to respiratory system.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 42/43 May cause sensitisation by inhalation and skin contact.
R 43 May cause sensitisation by skin contact.
R 66 Repeated exposure may cause skin dryness or cracking.
R 67 Vapours may cause drowsiness and dizziness.

H 226 Flammable liquid and vapour.
H 315 Causes skin irritation.
H 317 May cause an allergic skin reaction.
H 319 Causes serious eye irritation.
H 331 Toxic if inhaled.
H 332 Harmful if inhaled.
H 334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H 335 May cause respiratory irritation.
H 336 May cause drowsiness or dizziness.

The detailed information is based on our knowledge until the date above indicated. Those security details refer exclusively to the indicated product and do not constitute a guarantee of particular qualities. The user must ensure the adequacy and accuracy of such information in relation to the specific use that should be made of the product. This sheet cancels and replaces any previous edition.