

## 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** UR 3558 PART A
- **Application of the substance / the preparation** Polyurethane resin
- **Manufacturer/Supplier:**  
 AXSON FRANCE  
 Rue de l'Equerre  
 F-95310 SAINT OUEN L'AUMONE  
 Tél.(33-1)34 40 34 60
- **Further information obtainable from:** LAB. R&D -(33) 01 34 40 34 60
- **Information in case of emergency:** ORFILA : (33)01 45 42 59 59

## 2 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 5124-30-1	4,4'-methylenedi(cyclohexyl isocyanate)	T; R 23-36/37/38-42/43	10-25%
EINECS: 225-863-2			

## 3 Hazards identification

- **Hazard description:**



T Toxic

- **Information concerning particular hazards for human and environment:**  
 R 23 Toxic by inhalation.  
 R 42/43 May cause sensitisation by inhalation and skin contact.  
 Contains isocyanates. See information supplied by the manufacturer

## 4 First-aid measures

- **General information:**  
 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 or oxygen; call for doctor.
- **After skin contact:**  
 Immediately wash with water and soap and rinse thoroughly.  
 If skin irritation continues, consult a doctor.
- **After eye contact:**  
 Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.

## 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
 CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- **Special hazards caused by the substance, its products of combustion or resulting gases:**  
*Formation of toxic gases is possible during heating or in case of fire.  
 In case of fire, the following can be released:  
 Carbon monoxide (CO)  
 Nitrogen oxides (NOx)  
 Hydrogen cyanide (HCN)  
 (Traces)*
- **Protective equipment:** *Wear self-contained respiratory protective device.*
- **Additional information**  
*Cool endangered receptacles with water spray.  
 Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.*

### 6 Accidental release measures

- **Person-related safety precautions:** *Wear protective equipment. Keep unprotected persons away.*
- **Measures for environmental protection:**  
*Do not allow product to reach sewage system or any water course.*
- **Measures for cleaning/collecting:**  
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
 After approximately one hour, transfer to suitable drum containers. Do not close these (likelihood of CO<sub>2</sub> production). Cover tops only.  
 Leave open to air in a supervised area for 7 to 14 days before transferring to an authorized dumping site.*

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
*Ensure good ventilation/exhaustion at the workplace.  
 Keep receptacles tightly sealed.  
 Avoid exposure to the material of persons having suffered from chronic respiratory affections (especially asthmatic and bronchitic persons) and those having an isocyanate allergy.  
 Open and handle receptacle with care.*
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
*Store in a cool location.  
 Use only receptacles specifically permitted for this substance/product.*
- **Information about storage in one common storage facility:** *Store away from foodstuffs.*
- **Further information about storage conditions:** *Protect from humidity and water.*

### 8 Exposure controls/personal protection

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

- **Ingredients with limit values that require monitoring at the workplace:**

**5124-30-1 4,4'-methylenedi(cyclohexyl isocyanate)**

MEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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- **Additional information:** *The lists valid during the making were used as basis.*
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
*The usual precautionary measures are to be adhered to when handling chemicals.*

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*Immediately remove all soiled and contaminated clothing*

*Wash hands before breaks and at the end of work.*

*Store protective clothing separately.*

· **Respiratory protection:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.*

· **Protection of hands:**



Protective gloves

· **Material of gloves** Neoprene gloves

· **Penetration time of glove material**

*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

· **Eye protection:**



Safety glasses

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Viscous
<b>Colour:</b>	Colourless
<b>Odour:</b>	Weak, characteristic

· **Change in condition**

**Melting point/Melting range:** NA°C

· **Flash point:** 200°C (P-Martens)

· **Ignition temperature:** >400°C (DIN 51 794)

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 20°C:** 1.04 g/cm<sup>3</sup>

· **Solubility in / Miscibility with water:** Insoluble.

## 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

*No decomposition if used according to specifications.*

· **Dangerous reactions**

*May produce violent reactions with bases and numerous organic substances including alcohols and amines.*

*In the presence of water or humidity gas is produced (CO<sub>2</sub>) and/or uncontrolled polymerization, possibly leading to internal pressure rises and consequent risk of container breach.*

· **Dangerous decomposition products:** No dangerous decomposition products known.

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## 11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

**5124-30-1 4,4'-methylenedi(cyclohexyl isocyanate)**

Oral	LD50	>11000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rabbit)
Inhalative	LC50/4 h	434 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

- **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

## 12 Ecological information

- **Information about elimination (persistence and degradability):**

- **Other information:**

This product is not miscible in water. It acts on water, producing CO<sub>2</sub> and polyurea (a solid, non-fusible and insoluble compound) which is, to the best of our knowledge, inert and non-biodegradable. This reaction is promoted by the presence of surfactants such as liquide soap, or water-soluble solvents. Do not dispose of this product or the neutralization products in sewers, rivers or streams.

- **Ecotoxicological effects:**

- **Acquatic toxicity:**

**5124-30-1 4,4'-methylenedi(cyclohexyl isocyanate)**

EC50 (3h)	191 mg / l (bacteria)
EC50 (72h)	>5 mg/l (alga)

## 13 Disposal considerations

- **Product:**

- **Recommendation**

After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

- **European waste catalogue**

08 05 01	waste isocyanates
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- **Uncleaned packaging:**

- **Recommendation:**

Empty containers may not be disposed of unless any remaining material adhering to the internal walls has been removed.

Disposal must be made according to official regulations.

## 14 Transport information

- **Land transport ADR/RID (cross-border)**

- **ADR/RID class:** -

- **Maritime transport IMDG:**

- **IMDG Class:** -

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- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 9
- **UN/ID Number:** 3334
- **Proper shipping name:** Aviation regulated liquid, n.o.s. (dicyclohexylmethanediisocyanate)

### 15 Regulatory information

- **Labelling according to EU guidelines:**  
The product has been marked in accordance with EU Directives / respective national laws.
- **Code letter and hazard designation of product:**  
T Toxic
- **Hazard-determining components of labelling:**  
4,4'-methylenedi(cyclohexyl isocyanate)
- **Risk phrases:**  
23 Toxic by inhalation.  
42/43 May cause sensitisation by inhalation and skin contact.
- **Safety phrases:**  
9 Keep container in a well-ventilated place.  
23 Do not breathe gas/fumes/vapour/spray.  
24 Avoid contact with skin.  
37/39 Wear suitable gloves and eye/face protection.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
60 This material and its container must be disposed of as hazardous waste.
- **Special labelling of certain preparations:**  
Contains isocyanates. See information supplied by the manufacturer
- **National regulations:**
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 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**  
23 Toxic by inhalation.  
36/37/38 Irritating to eyes, respiratory system and skin.  
42/43 May cause sensitisation by inhalation and skin contact.
- **Department issuing MSDS:** Product Safety and Toxicology