

# WoodWeld™ Syringe - Part A J-B Weld Company LLC

Version No: 3.7

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **08/22/2023**Print Date: **08/22/2023**S.GHS.USA.EN

# **SECTION 1 Identification**

# **Product Identifier**

Product name	WoodWeld™ Syringe - Part A
Synonyms	50151 A
Other means of identification	Not Available

#### Recommended use of the chemical and restrictions on use

Relevant identified uses

Isocyanates are a family of highly reactive, low molecular weight chemicals. They are widely used in the manufacture of flexible and rigid foams, fibres, coatings such as paints and varnishes, and elastomers, and are increasingly used in the automobile industry, autobody repair, and building insulation materials.

#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	J-B Weld Company LLC	
Address	00 CMH Road TX 75482 United States	
Telephone	903-885-7696	
Fax	Not Available	
Website	WWW.JBWeld.com	
Email	info@JBWeld.com	

# **Emergency phone number**

Association / Organisation	InfoTrac	
Emergency telephone numbers	Transportation Emergencies: 800-535-5053 or (24 hours)	
Other emergency telephone numbers	Poison Control Centers: Medical Emergencies 800-222-1222 (24 hours)	

# SECTION 2 Hazard(s) identification

#### Classification of the substance or mixture

#### NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification

Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A, Sensitisation (Respiratory) Category 1, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Carcinogenicity Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2

# Label elements

Hazard pictogram(s)





Signal word

Danger

# Hazard statement(s)

H302	Harmful if swallowed
H302	naiiiiui ii Swallowed

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H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure. (Skin) (Dermal)

# Hazard(s) not otherwise classified

Not Applicable

# Precautionary statement(s) Prevention

P201	Obtain special instructions before use.	
P260	Do not breathe mist/vapours/spray.	
P261	Avoid breathing mist/vapours/spray.	
P271	Use only outdoors or in a well-ventilated area.	
P280	Wear protective gloves, protective clothing, eye protection and face protection.	
P284	[In case of inadequate ventilation] wear respiratory protection.	
P264	Wash all exposed external body areas thoroughly after handling.	
P270	Do not eat, drink or smoke when using this product.	
P202	Do not handle until all safety precautions have been read and understood.	
P272	Contaminated work clothing must not be allowed out of the workplace.	

# Precautionary statement(s) Response

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P308+P313	IF exposed or concerned: Get medical advice/ attention.	
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician/first aider.	
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/doctor/physician/first aider/if you feel unwell.	
P314	Get medical advice/attention if you feel unwell.	
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.	
P337+P313	f eye irritation persists: Get medical advice/attention.	
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	
P302+P352	IF ON SKIN: Wash with plenty of water and soap.	
P330	Rinse mouth.	
P332+P313	If skin irritation occurs: Get medical advice/attention.	
P362+P364	Take off contaminated clothing and wash it before reuse.	

# Precautionary statement(s) Storage

P405	Store locked up.	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.	

# Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

# **SECTION 3 Composition / information on ingredients**

# Substances

See section below for composition of Mixtures

# Mixtures

CAS No	%[weight]	Name
101-68-8	40	4.4'-diphenylmethane diisocyanate (MDI)
9048-57-1	23	MDI, propoxylated
14807-96-6*	15	<u>Talc</u>
1318-02-1	10	zeolites
25686-28-6	5	MDI homopolymer
68611-44-9	5	silica amorphous
108-32-7	2	propylene carbonate

# **SECTION 4 First-aid measures**

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#### Description of first aid measures

**Eve Contact** 

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Figure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

#### If skin or hair contact occurs:

- ▶ Quickly but gently, wipe material off skin with a dry, clean cloth.
- Immediately remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
- Transport to hospital, or doctor.

#### For thermal burns:

- ► Decontaminate area around burn.
- Consider the use of cold packs and topical antibiotics.

For first-degree burns (affecting top layer of skin)

- Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides.
- Use compresses if running water is not available.
- ▶ Cover with sterile non-adhesive bandage or clean cloth.
- ▶ Do NOT apply butter or ointments; this may cause infection.
- ▶ Give over-the counter pain relievers if pain increases or swelling, redness, fever occur.

For second-degree burns (affecting top two layers of skin)

- ▶ Cool the burn by immerse in cold running water for 10-15 minutes
- Use compresses if running water is not available.

# Skin Contact

- Do NOT apply ice as this may lower body temperature and cause further damage.
  - Do NOT break blisters or apply butter or ointments; this may cause infection.
  - ▶ Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape.

To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort):

- Lay the person flat.
- Elevate feet about 12 inches.
- ▶ Elevate burn area above heart level, if possible.
- Cover the person with coat or blanket.
- Seek medical assistance.

#### For third-degree burns

Seek immediate medical or emergency assistance.

#### In the mean time:

- Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound.
- Separate burned toes and fingers with dry, sterile dressings.
- Do not soak burn in water or apply ointments or butter; this may cause infection.
- ► To prevent shock see above.
- For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway.
- Have a person with a facial burn sit up.
- Check pulse and breathing to monitor for shock until emergency help arrives.

# Inhalation

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- ► Transport to hospital, or doctor, without delay.

Following uptake by inhalation, move person to an area free from risk of further exposure. Oxygen or artificial respiration should be administered as needed. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Treatment is essentially symptomatic. A physician should be consulted.

- ► IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
- ► For advice, contact a Poisons Information Centre or a doctor.
- Urgent hospital treatment is likely to be needed.
- In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.
- If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist
- If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS.

# Ingestion

# Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed

INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

NOTE: Wear a protective glove when inducing vomiting by mechanical means

# Most important symptoms and effects, both acute and delayed

See Section 11

# Indication of any immediate medical attention and special treatment needed

Treat symptomatically

For sub-chronic and chronic exposures to isocyanates:

- This material may be a potent pulmonary sensitiser which causes bronchospasm even in patients without prior airway hyperreactivity.
- Clinical symptoms of exposure involve mucosal irritation of respiratory and gastrointestinal tracts
- Conjunctival irritation, skin inflammation (erythema, pain vesiculation) and gastrointestinal disturbances occur soon after exposure.
- Pulmonary symptoms include cough, burning, substernal pain and dyspnoea.
- Some cross-sensitivity occurs between different isocyanates
- Noncardiogenic pulmonary oedema and bronchospasm are the most serious consequences of exposure. Markedly symptomatic patients should receive oxygen, ventilatory

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support and an intravenous line.

- ▶ Treatment for asthma includes inhaled sympathomimetics (epinephrine [adrenalin], terbutaline) and steroids.
- Activated charcoal (1 g/kg) and a cathartic (sorbitol, magnesium citrate) may be useful for ingestion.
- Mydriatics, systemic analgesics and topical antibiotics (Sulamyd) may be used for corneal abrasions.
- There is no effective therapy for sensitised workers.

[Ellenhorn and Barceloux; Medical Toxicology]

NOTE: Isocyanates cause airway restriction in naive individuals with the degree of response dependant on the concentration and duration of exposure. They induce smooth muscle contraction which leads to bronchoconstrictive episodes. Acute changes in lung function, such as decreased FEV1, may not represent sensitivity. [Karol & Jin, Frontiers in Molecular Toxicology, pp 56-61, 1992]

Personnel who work with isocyanates, isocyanate prepolymers or polyisocyanates should have a pre-placement medical examination and periodic examinations thereafter, including a pulmonary function test. Anyone with a medical history of chronic respiratory disease, asthmatic or bronchial attacks, indications of allergic responses, recurrent eczema or sensitisation conditions of the skin should not handle or work with isocyanates. Anyone who develops chronic respiratory distress when working with isocyanates should be removed from exposure and examined by a physician. Further exposure must be avoided if a sensitivity to isocyanates or polyisocyanates has developed.

# **SECTION 5 Fire-fighting measures**

#### **Extinguishing media**

- Small quantities of water in contact with hot liquid may react violently with generation of a large volume of rapidly expanding hot sticky semi-solid foam.
- Presents additional hazard when fire fighting in a confined space.
- Dry chemical powder.

#### Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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Special protective equipment	and precautions for fire-fighters
Fire Fighting	<ul> <li>When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.</li> <li>When heated to extreme temperatures, (&gt;1700 deg.C) amorphous silica can fuse.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear full body protective clothing with breathing apparatus.</li> </ul>
Fire/Explosion Hazard	When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.      When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse.      Combustible.      Moderate fire hazard when exposed to heat or flame. Combustion products include:     carbon dioxide (CO2)     isocyanates     hydrogen cyanide     and minor amounts of     nitrogen oxides (NOx)     silicon dioxide (SiO2)     other pyrolysis products typical of burning organic material. May emit corrosive fumes.  When heated at high temperatures many isocyanates decompose rapidly generating a vapour which pressurises containers, possibly to the point of rupture. Release of toxic and/or flammable isocyanate vapours may then occur

# **SECTION 6 Accidental release measures**

# Personal precautions, protective equipment and emergency procedures

See section 8

#### **Environmental precautions**

# Methods and material for containment and cleaning up

Minor Spills	<ul> <li>Remove all ignition sources.</li> <li>Clean up all spills immediately.</li> </ul>
Major Spills	<ul> <li>Liquid Isocyanates and high isocyanate vapour concentrations will penetrate seals on self contained breathing apparatus - SCBA should be used inside encapsulating suit where this exposure may occur.</li> <li>For isocyanate spills of less than 40 litres (2 m2):</li> <li>Evacuate area from everybody not dealing with the emergency, keep them upwind and prevent further access, remove ignition sources and, if inside building, ventilate area as well as possible.</li> <li>Notify supervision and others as necessary.</li> <li>Avoid contamination with water, alkalies and detergent solutions.</li> <li>Material reacts with water and generates gas, pressurises containers with even drum rupture resulting.</li> <li>Moderate hazard.</li> <li>Clear area of personnel and move upwind.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

# **SECTION 7 Handling and storage**

# Precautions for safe handling

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#### Safe handling

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- ▶ DO NOT allow clothing wet with material to stay in contact with skin

# Other information

Consider storage under inert gas.

for commercial quantities of isocyanates:

- · Isocyanates should be stored in adequately bunded areas. Nothing else should be kept within the same bunding.
- Store in original containers.
- Keep containers securely sealed.

#### Conditions for safe storage, including any incompatibilities

#### Suitable container

Storage incompatibility

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

The substance may be or contains a "metalloid"

The following elements are considered to be metalloids; boron, silicon, germanium, arsenic, antimony, tellurium and (possibly) polonium The electronegativities and ionisation energies of the metalloids are between those of the metals and nonmetals, so the metalloids exhibit characteristics of both classes. The reactivity of the metalloids depends on the element with which they are reacting. Silicas:

- react with hydrofluoric acid to produce silicon tetrafluoride gas
- react with xenon hexafluoride to produce explosive xenon trioxide
- reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride (these halogenated materials are not commonplace industrial materials) and other fluorine-containing compounds
- may react with fluorine, chlorates
- re incompatible with strong oxidisers, manganese trioxide, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid, vinyl acetate
- may react vigorously when heated with alkali carbonates.
- Avoid strong acids, bases.
- · Avoid reaction with water, alcohols and detergent solutions. Isocyanates are electrophiles, and as such they are reactive toward a variety of nucleophiles including alcohols, amines, and even water.
- A range of exothermic decomposition energies for isocyanates is given as 20-30 kJ/mol.
- The relationship between energy of decomposition and processing hazards has been the subject of discussion; it is suggested that values of energy released per unit of mass, rather than on a molar basis (J/g) be used in the assessment.

# SECTION 8 Exposure controls / personal protection

# **Control parameters**

# Occupational Exposure Limits (OEL)

# INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	4,4'-diphenylmethane diisocyanate (MDI)	Methylene bisphenyl isocyanate (MDI)	Not Available	Not Available	0.02 ppm / 0.2 mg/m3	Not Available
US NIOSH Recommended Exposure Limits (RELs)	4,4'-diphenylmethane diisocyanate (MDI)	Methylene bisphenyl isocyanate	0.005 ppm / 0.05 mg/m3	Not Available	0.020 (10-minute) ppm / 0.2 (10-minute) mg/m3	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (containing asbestos)	Not Available	Not Available	Not Available	Use asbestos limit
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Soapstone	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (not containing asbestos)	20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Talc	Talc (containing no asbestos and less than 1% quartz) - respirable	2 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	zeolites	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	zeolites	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	zeolites	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	zeolites	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	zeolites	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica amorphous	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available

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Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica amorphous	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	silica amorphous	Amorphous, including natural diatomaceous earth	80 (%SiO2) mg/m3 / 20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	silica amorphous	Silica, amorphous	6 mg/m3	Not Available	Not Available	Not Available

#### Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
4,4'-diphenylmethane diisocyanate (MDI)	0.45 mg/m3	Not Available	Not Available
4,4'-diphenylmethane diisocyanate (MDI)	29 mg/m3	40 mg/m3	240 mg/m3
zeolites	30 mg/m3	330 mg/m3	2,000 mg/m3
zeolites	30 mg/m3	330 mg/m3	2,000 mg/m3
silica amorphous	18 mg/m3	200 mg/m3	1,200 mg/m3
silica amorphous	18 mg/m3	100 mg/m3	630 mg/m3
silica amorphous	120 mg/m3	1,300 mg/m3	7,900 mg/m3
silica amorphous	45 mg/m3	500 mg/m3	3,000 mg/m3
silica amorphous	18 mg/m3	740 mg/m3	4,500 mg/m3
propylene carbonate	34 mg/m3	370 mg/m3	2,200 mg/m3

Ingredient	Original IDLH	Revised IDLH
4,4'-diphenylmethane diisocyanate (MDI)	75 mg/m3	Not Available
MDI, propoxylated	Not Available	Not Available
Talc	1,000 mg/m3	Not Available
zeolites	Not Available	Not Available
MDI homopolymer	Not Available	Not Available
silica amorphous	3,000 mg/m3	Not Available
propylene carbonate	Not Available	Not Available

#### Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit		
MDI, propoxylated	E	≤ 0.1 ppm		
MDI homopolymer	E	≤ 0.1 ppm		
propylene carbonate	E	≤ 0.1 ppm		
Notes:		Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a		

range of exposure concentrations that are expected to protect worker health.

# **Exposure controls**

# Appropriate engineering controls

- ▶ All processes in which isocvanates are used should be enclosed wherever possible.
- Figure 1 Total enclosure, accompanied by good general ventilation, should be used to keep atmospheric concentrations below the relevant exposure standards.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

# Individual protection measures, such as personal protective equipment









# Eye and face protection

- Safety glasses with side shields.
- Chemical goggles.

# Skin protection

# See Hand protection below NOTE:

Fig. The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

# Hands/feet protection

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

# ► Do NOT wear natural rubber (latex gloves).

- Isocyanate resistant materials include Teflon, Viton, nitrile rubber and some PVA gloves.
- Protective gloves and overalls should be worn as specified in the appropriate national standard.
- DO NOT use skin cream unless necessary and then use only minimum amount.
- Isocyanate vapour may be absorbed into skin cream and this increases hazard.

# **Body protection**

See Other protection below

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#### Other protection

All employees working with isocyanates must be informed of the hazards from exposure to the contaminant and the precautions necessary to prevent damage to their health. They should be made aware of the need to carry out their work so that as little contamination as possible is produced, and of the importance of the proper use of all safeguards against exposure to themselves and their fellow workers.

- Overalls.
- P.V.C apron.

#### Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

For spraying or operations which might generate aerosols:

Full face respirator with supplied air.

- In certain circumstances, personal protection of the individual employee is necessary. Personal protective devices should be regarded as being supplementary to substitution and engineering control and should not be used in preference to them as they do nothing to eliminate the hazard.
- However, in some situations, minimising exposure to isocyanates by enclosure and ventilation is not possible, and occupational exposure standards may be exceeded, particularly during on-site mixing of paints, spray-painting, foaming and maintenance of machine and ventilation systems. In these situations, air-line respirators or self-contained breathing apparatus complying with the appropriate nationals standard must be used.
- Organic vapour respirators with particulate pre-filters and powered, air-purifying respirators are NOT suitable.
- Personal protective equipment must be appropriately selected, individually fitted and workers trained in their correct use and maintenance. Personal protective equipment must be regularly checked and maintained to ensure that the worker is being protected.
- Air- line respirators or self-contained breathing apparatus complying with the appropriate national standard should be used during the clean-up of spills and the repair or clean-up of contaminated equipment and similar situations which cause emergency exposures to hazardous atmospheric concentrations of isocyanate.

#### **SECTION 9 Physical and chemical properties**

Information on basic physical a	and chemical properties		
Appearance	Moisture sensitive. Off-White Liquid		
Physical state	Liquid	Relative density (Water = 1)	1.1-1.5
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

# **SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Presence of elevated temperatures.</li> </ul>
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7

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Hazardous decomposition products

See section 5

# **SECTION 11 Toxicological information**

Information on toxicological ef	fects				
Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. There is strong evidence to suggest that this material can cause, if inhaled once, serious, irreversible damage of organs.  The vapour/mist may be highly irritating to the upper respiratory tract and lungs; the response may be severe enough to produce bronchitis pulmonary oedema. Possible neurological symptoms arising from isocyanate exposure include headache, insomnia, euphoria, ataxia, anxieneurosis, depression and paranoia.  Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.				
Ingestion	Strong evidence exists that exposure to the material may cause irreversible damage (other than cancer, mutations and birth defects) following a single exposure by swallowing.  The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.  Accidental ingestion of the material may be seriously damaging to the health of the individual; animal experiments indicate that ingestion of less than 40 gram may be fatal.				
Skin Contact	This material can cause inflammation of the skin on contact in some persons.  There is strong evidence to suggest that this material, on a single contact with skin, can cause serious, irreversible damage of organs.  The material may accentuate any pre-existing dermatitis condition  Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.  Open cuts, abraded or irritated skin should not be exposed to this material  Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.				
Eye	This material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.				
Chronic	Repeated or long-term occupational exposure is likely to p Long-term exposure to respiratory irritants may result in ai Inhaling this product is more likely to cause a sensitisation Skin contact with the material is more likely to cause a ser Amorphous silicas generally are less hazardous than cryst cooling. Inhalation of dusts containing crystalline silicas me Soluble silicates do not exhibit sensitizing potential. Testing mutations or birth defects.  Persons with a history of asthma or other respiratory problem handling of isocyanates.  The chemistry of reaction of isocyanates, as evidenced by	er or mutations, but there is not enough data to make an assessment. roduce cumulative health effects involving organs or biochemical systems. rways disease, involving difficulty breathing and related whole-body problems. reaction in some persons compared to the general population. sitisation reaction in some persons compared to the general population. salline silicas, but the former can be converted to the latter on heating and subsequent ay lead to silicosis, a disabling lung disease that may take years to develop. g in bacterial and animal experiments have not shown any evidence of them causing ems or are known to be sensitised, should not be engaged in any work involving the MDI, in biological milieu is such that in the event of a true exposure of small MDI biological macromolecules in the buccal region and will continue along the digestive			
WoodWoldTM Syrings   Bort A	TOXICITY	IRRITATION			
WoodWeld™ Syringe - Part A	Not Available	Not Available			
	TOXICITY	IRRITATION			
4.41 dimb and made 1.50	Dermal (rabbit) LD50: >6200 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>			
4,4'-diphenylmethane diisocyanate (MDI)	Inhalation(Rat) LC50: 0.368 mg/L4h <sup>[1]</sup>	Skin (rabbit): 500 mg /24 hours Dermal Sensitiser *Respiratory Sensitiser (g.pig) *[* = Bayer CCINFO 2133615]			
	Oral (Mouse) LD50; 2200 mg/kg <sup>[2]</sup>	Skin: adverse effect observed (irritating) <sup>[1]</sup>			

V IIV. LITM O D A	TOXICITY	IRRITATION
VoodWeld™ Syringe - Part A	Not Available	Not Available
	TOXICITY	IRRITATION
A Al. Pol. and loved and	Dermal (rabbit) LD50: >6200 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
4,4'-diphenylmethane diisocyanate (MDI)	Inhalation(Rat) LC50: 0.368 mg/L4h <sup>[1]</sup>	Skin (rabbit): 500 mg /24 hours Dermal Sensitiser *Respiratory Sensitiser (g.pig) *[* = Bayer CCINFO 2133615]
	Oral (Mouse) LD50; 2200 mg/kg <sup>[2]</sup>	Skin: adverse effect observed (irritating) <sup>[1]</sup>
	TOXICITY	IRRITATION
MDI, propoxylated	Not Available	Not Available
	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
Talc	Inhalation(Rat) LC50: >2.1 mg/l4h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>	
	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[2]</sup>	Not Available
zeolites	Inhalation(Rat) LC50: >0.5 mg/l4h <sup>[2]</sup>	
	Oral (Rat) LD50: >2000 mg/kg <sup>[1]</sup>	
	TOXICITY	IRRITATION
MDI homopolymer	Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
		Skin: adverse effect observed (irritating) <sup>[1]</sup>

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# WoodWeld™ Syringe - Part A

	TOXICITY	IRRITATION			
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>		n-irritating ** [Grace]		
silica amorphous	Inhalation(Rat) LC50: >0.09<0.84 mg/l4h <sup>[1]</sup>		e effect observed (not irritating) <sup>[1]</sup>		
Sinca amorphous	Oral (Rat) LD50: >1000 mg/kg <sup>[1]</sup>	Skin (rabbit): no			
		· , ,	e effect observed (not irritating) <sup>[1]</sup>		
	TOXICITY	IRRITATION			
	Dermal (rabbit) LD50: >=2000 mg/kg <sup>[1]</sup>	Eye (rabbit): 60	mg - moderate		
propylene carbonate	Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>	-	fect observed (irritating) <sup>[1]</sup>		
		· · · · · ·	00 mg/3d-I moderate		
		Skin (rabbit): 50			
		Skin: no advers	e effect observed (not irritating) <sup>[1]</sup>		
Legend:	Value obtained from Europe ECHA Registered Sub- specified data extracted from RTECS - Register of To:		ined from manufacturer's SDS. Unless otherwise		
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI)	Inhalation (human) TCLo: 0.13 ppm/30 mins Eye (rabl Aromatic and aliphatic diisocyanates may cause airwa effect.		omers and prepolymers exhibit similar respiratory		
MDI, PROPOXYLATED	No significant acute toxicological data identified in liter Polyethers (such as ethoxylated surfactants and polye mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidise	ethylene glycols) are highly susceptible	e to being oxidized in the air. They then form complex of the oxidation products are sensitisers.		
ZEOLITES	Inhalation (-) LC50: >18.3 mg/l/1hr for sodium alumino	osilicate, zeolite A: Skin (rabbit): non-i	rritating Eye (rabbit): slight [Grace]		
MDI HOMOPOLYMER	as polymethylene polyphenyl isocyanate				
SILICA AMORPHOUS	Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS]				
PROPYLENE CARBONATE	WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.  for propylene carbonate:  Numerous adequate and reliable acute toxicity tests are available on propylene carbonate. Oral and dermal tests meet OECD and EPA test quidelines.				
WoodWeld™ Syringe - Part A & 4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) & MDI, PROPOXYLATED & MDI HOMOPOLYMER	Asthma-like symptoms may continue for months or even known as reactive airways dysfunction syndrome (RAI Allergic reactions involving the respiratory tract are us potential of the allergen and period of exposure often attention should be paid to atopic diathesis, character Exogenous allergic alveolitis is induced essentially by lymphocytes) may be involved. Such allergy is of the office of the following information refers to contact allergens a Contact allergies quickly manifest themselves as contispoyanate vapours are irritating to the airways and caconsciousness and fluid in the lungs. Nervous system anxiety, depression and paranoia.	DS) which can occur after exposure to ually due to interactions between IgE determine the severity of symptoms, issed by increased susceptibility to naviallergen specific immune-complexes delayed type with onset up to four hous a group and may not be specific to act eczema, more rarely as urticaria on cause their inflammation, with whe	o high levels of highly irritating compound. antibodies and allergens and occur rapidly. Allergic sal inflammation, asthma and eczema. of the IgG type; cell-mediated reactions (T urs following exposure. this product. or Quincke's oedema. ezing, gasping, severe distress, even loss of		
WoodWeld™ Syringe - Part A & SILICA AMORPHOUS	For silica amorphous:  Derived No Adverse Effects Level (NOAEL) in the range of 1000 mg/kg/d.  In humans, synthetic amorphous silica (SAS) is essentially non-toxic by mouth, skin or eyes, and by inhalation. Epidemiology studies show little evidence of adverse health effects due to SAS.				
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) & MDI HOMOPOLYMER & SILICA AMORPHOUS	The substance is classified by IARC as Group 3:  NOT classifiable as to its carcinogenicity to humans.  Evidence of carcinogenicity may be inadequate or limited in animal testing.				
4,4'-DIPHENYLMETHANE DIISOCYANATE (MDI) & PROPYLENE CARBONATE	The material may produce moderate eye irritation lead conjunctivitis.	ding to inflammation. Repeated or pro	longed exposure to irritants may produce		
			1		
Acute Toxicity	<b>*</b>	Carcinogenicity	✓		
Acute Toxicity Skin Irritation/Corrosion	<b>*</b>	Carcinogenicity Reproductivity	×		
Skin Irritation/Corrosion Serious Eye Damage/Irritation					
Skin Irritation/Corrosion	✓	Reproductivity	×		

**Legend:** X − Data either not available or does not fill the criteria for classification 
✓ − Data available to make classification

# **SECTION 12 Ecological information**

Toxicit	v

WoodWeld™ Syringe - Part A	Endpoint	Test Duration (hr)	Species	Value	Source

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# WoodWeld™ Syringe - Part A

	Not Available	Not Available	Not Available		Not Available	Not Availabl
	Endpoint	Test Duration (hr)	Species	Value	•	Source
	BCF	672h	Fish	61-15	60	7
4,4'-diphenylmethane	EC50	48h	Crustacea	>100	mg/l	2
diisocyanate (MDI)	LC50	96h	Fish	95.24	-134.37mg/l	Not Availab
	NOEC(ECx)	504h	Crustacea	>=10	mg/l	2
	Endpoint	Test Duration (hr)	Species		Value	Source
MDI, propoxylated	Not Available	Not Available	Not Available		Not Available	Not Availab
	Endpoint	Test Duration (hr)	Species	v	alue	Source
	EC50	96h	Algae or other aquatic plants	7	202.7mg/l	2
Talc	LC50	96h	Fish	8	9581.016mg/l	2
	NOEC(ECx)	720h	Algae or other aquatic plants	9	18.089mg/l	2
	Endpoint	Test Duration (hr)	Species		Value	Source
	EC50	72h	Algae or other aquatic plants		>1000mg/l	2
	EC50	48h	Crustacea		100-1800mg/l	1
zeolites	EC50	96h	Algae or other aquatic plants		18mg/l	1
	ErC50	72h	Algae or other aquatic plants		18mg/l	1
	LC50	96h	Fish		1000mg/l	1
	EC10(ECx)	96h	Algae or other aquatic plants		4.9mg/l	1
MDI homopolymer	Endpoint	Test Duration (hr)	Species		Value	Source
MDI nomopolymer	NOEC(ECx)	504h	Crustacea		>=10mg/l	2
	Endpoint	Test Duration (hr)	Species		Value	Source
	EC50	72h	Algae or other aquatic plants		14.1mg/l	2
silica amorphous	EC50	48h	Crustacea		>86mg/l	2
Sinca amorphous	EC50	96h	Algae or other aquatic plants		217.576mg/l	2
	LC50	96h	Fish		1033.016mg/l	2
	EC0(ECx)	24h	Crustacea		>=10000mg/l	1
	Endpoint	Test Duration (hr)	Species		Value	Source
	NOEC(ECx)	72h	Algae or other aquatic plants		900mg/l	1
	EC50	72h	Algae or other aquatic plants		>900mg/l	1
propylene carbonate			Cruotopoo		4000 //	1
propylene carbonate	EC50	48h	Crustacea		>1000mg/l	1

for polyisocyanates:

Polyisocyanates are not readily biodegradable. However, due to other elimination mechanisms (hydrolysis, adsorption), long retention times in water are not to be expected. For Isocyanate Monomers:

Environmental Fate: Isocyanates, (di- and polyfunctional isocyanates), are commonly used to make various polymers, such as polyurethanes. Polyurethanes find significant application in the manufacture of rigid and flexible foams.

Microbial methylation plays important roles in the biogeochemical cycling of the metalloids and possibly in their detoxification. Many microorganisms (bacteria, fungi, and yeasts) and animals are now known to biomethylate arsenic, forming both volatile (e.g., methylarsines) and nonvolatile (e.g., methylarsonic acid and dimethylarsinic acid) compounds. For Amorphous Silica: Amorphous silica is chemically and biologically inert. It is not biodegradable. For Silica:

Environmental Fate: Most documentation on the fate of silica in the environment concerns dissolved silica, in the aquatic environment, regardless of origin, (man-made or natural), or structure, (crystalline or amorphous).

Terrestrial Fate: Silicon makes up 25.7% of the Earth's crust, by weight, and is the second most abundant element, being exceeded only by oxygen.

DO NOT discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
4,4'-diphenylmethane diisocyanate (MDI)	LOW (Half-life = 1 days)	LOW (Half-life = 0.24 days)
silica amorphous	LOW	LOW
propylene carbonate	HIGH	HIGH

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# WoodWeld™ Syringe - Part A

Ingredient	Bioaccumulation
4,4'-diphenylmethane diisocyanate (MDI)	LOW (BCF = 15)
silica amorphous	LOW (LogKOW = 0.5294)
propylene carbonate	LOW (LogKOW = -0.41)

#### Mobility in soil

Ingredient	Mobility
4,4'-diphenylmethane diisocyanate (MDI)	LOW (KOC = 376200)
silica amorphous	LOW (KOC = 23.74)
propylene carbonate	LOW (KOC = 14.85)

#### **SECTION 13 Disposal considerations**

#### Waste treatment methods

- Containers may still present a chemical hazard/ danger when empty.
- ▶ Return to supplier for reuse/ recycling if possible.

# Product / Packaging disposal

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.

- ▶ DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- DO NOT recycle spilled material.
- ► Consult State Land Waste Management Authority for disposal.

#### **SECTION 14 Transport information**

#### **Labels Required**

Marine Pollutant NO

Shipping container and transport vehicle placarding and labeling may vary from the below information. Products that are regulated for transport will be packaged and marked as Dangerous Goods in Limited Quantities according to US DOT, IATA and IMDG regulations. In case of reshipment, it is the responsibility of the shipper to determine the appropriate

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

labels and markings in accordance with applicable transport regulations.

Not Applicable

# Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
4,4'-diphenylmethane diisocyanate (MDI)	Not Available
MDI, propoxylated	Not Available
Talc	Not Available
zeolites	Not Available
MDI homopolymer	Not Available
silica amorphous	Not Available
propylene carbonate	Not Available

# Transport in bulk in accordance with the IGC Code

Product name	Ship Type
4,4'-diphenylmethane diisocyanate (MDI)	Not Available
MDI, propoxylated	Not Available
Talc	Not Available
zeolites	Not Available
MDI homopolymer	Not Available
silica amorphous	Not Available
propylene carbonate	Not Available

# **SECTION 15 Regulatory information**

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# WoodWeld™ Syringe - Part A

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#### 4.4'-diphenylmethane diisocyanate (MDI) is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants

US - Massachusetts - Right To Know Listed Chemicals

US Clean Air Act - Hazardous Air Pollutants

US DOE Temporary Emergency Exposure Limits (TEELs)

US EPA Integrated Risk Information System (IRIS)

#### MDI, propoxylated is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

#### Talc is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

#### zeolites is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US DOE Temporary Emergency Exposure Limits (TEELs)

#### MDI homopolymer is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

#### silica amorphous is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - California - Biomonitoring - Priority Chemicals

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US - Massachusetts - Right To Know Listed Chemicals

# propylene carbonate is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)

US EPCRA Section 313 Chemical List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA New Chemical Exposure Limits (NCEL)

US - Massachusetts - Right To Know Listed Chemicals

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Carcinogens Listing

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

#### Federal Regulations

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	Yes
Acute toxicity (any route of exposure)	Yes
Reproductive toxicity	No
Skin Corrosion or Irritation	Yes

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# WoodWeld™ Syringe - Part A

Yes Respiratory or Skin Sensitization Serious eye damage or eye irritation Yes Specific target organ toxicity (single or repeated exposure) Yes Aspiration Hazard No Germ cell mutagenicity No Simple Asphyxiant No Hazards Not Otherwise Classified No

# US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
4,4'-diphenylmethane diisocyanate (MDI)	5000	2270

# State Regulations

#### US. California Proposition 65



WARNING: This product can expose you to chemicals including silica amorphous, which is known to the State of California to cause cancer. For more information, go to

# **National Inventory Status**

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (4,4'-diphenylmethane diisocyanate (MDI); MDI, propoxylated; Talc; MDI homopolymer; propylene carbonate)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (MDI, propoxylated; zeolites)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (MDI, propoxylated; MDI homopolymer)
Vietnam - NCI	Yes
Russia - FBEPH	No (MDI, propoxylated)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

# **SECTION 16 Other information**

Revision Date	08/22/2023
Initial Date	09/19/2020

#### **SDS Version Summary**

Version	Date of Update	Sections Updated
2.7	08/21/2023	Hazards identification - Classification, Identification of the substance / mixture and of the company / undertaking - Synonyms

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

Powered by AuthorITe, from Chemwatch.



# WoodWeld™ Syringe - Part B J-B Weld Company LLC

Version No: 3.3

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **08/22/2023** Print Date: **08/22/2023** S.GHS.USA.EN

# **SECTION 1 Identification**

Other means of identification

Product Identifier	
Product name	WoodWeld™ Syringe - Part B
Synonyms	50151 B

#### Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.

#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

UFI:CNUF-G4VH-S003-E75W

Registered company name	J-B Weld Company LLC	
Address	400 CMH Road TX 75482 United States	
Telephone	903-885-7696	
Fax	Not Available	
Website	WWW.JBWeld.com	
Email	info@JBWeld.com	

# **Emergency phone number**

Association / Organisation	InfoTrac	
Emergency telephone numbers	Transportation Emergencies: 800-535-5053 or (24 hours)	
Other emergency telephone numbers	Poison Control Centers: Medical Emergencies 800-222-1222 (24 hours)	

# SECTION 2 Hazard(s) identification

# Classification of the substance or mixture NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification Reproductive Toxicity Category 2

# Label elements

Hazard pictogram(s)



Signal word Wa

Warning

# Hazard statement(s)

H361 Suspected of damaging fertility or the unborn child.

# Hazard(s) not otherwise classified

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# WoodWeld™ Syringe - Part B

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#### Precautionary statement(s) Prevention

P201	Obtain special instructions before use.	
P280	P280 Wear protective gloves and protective clothing.	
P202 Do not handle until all safety precautions have been read and understood.		

#### Precautionary statement(s) Response

P308+P313 | IF exposed or concerned: Get medical advice/ attention.

# Precautionary statement(s) Storage

P405 Store locked up.

#### Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

# **SECTION 3 Composition / information on ingredients**

#### Substances

See section below for composition of Mixtures

#### **Mixtures**

CAS No	%[weight]	Name	
14807-96-6*	30	<u>Talc</u>	
1333-86-4	0.9	carbon black	
110-85-0	0.4	piperazine	
1318-02-1	1.1	zeolites	
280-57-9	0.4	triethylenediamine	
25791-96-2	0.9	polypropylene glycol glyceryl ether	
9082-00-2	25	glycerol, ethoxylated, propoxylated	
68909-20-6	2	silica amorphous	
25723-16-4	26.3	trimethylolpropane propoxylated	
71011-26-2	10	tallow dimethylbenzylammonium chloride/ hectorite	
59675-67-1	3	MDI-glycerol, propoxylated, ethoxylated	

# **SECTION 4 First-aid measures**

# Description of first aid measures

Eye Contact

If this product comes in contact with eyes:

- Wash out immediately with water.
- If irritation continues, seek medical attention.
- ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

#### If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

#### For thermal burns:

- Decontaminate area around burn.
- ▶ Consider the use of cold packs and topical antibiotics.

# For first-degree burns (affecting top layer of skin)

- ▶ Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides
- Use compresses if running water is not available.
- Ose compresses il running water is not available.
   Cover with sterile non-adhesive bandage or clean cloth.
- Do NOT apply butter or ointments; this may cause infection.
- Give over-the counter pain relievers if pain increases or swelling, redness, fever occur.

# For second-degree burns (affecting top two layers of skin)

- Cool the burn by immerse in cold running water for 10-15 minutes.
- Skin Contact Use compresses if running water is not available.
  - Do NOT apply ice as this may lower body temperature and cause further damage.
  - ▶ Do NOT break blisters or apply butter or ointments; this may cause infection.
  - ▶ Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape. To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort):
  - To prevent shock: (unless the Lay the person flat.
  - Elevate feet about 12 inches.
  - Elevate burn area above heart level, if possible.
  - Cover the person with coat or blanket.
  - Seek medical assistance.

# For third-degree burns

Seek immediate medical or emergency assistance.

# In the mean time:

- Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound.
- Separate burned toes and fingers with dry, sterile dressings.
- Do not soak burn in water or apply ointments or butter; this may cause infection.
- ► To prevent shock see above.

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	<ul> <li>For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway.</li> <li>Have a person with a facial burn sit up.</li> <li>Check pulse and breathing to monitor for shock until emergency help arrives.</li> </ul>
Inhalation	<ul> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> <li>Following uptake by inhalation, move person to an area free from risk of further exposure. Oxygen or artificial respiration should be administered as needed. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Treatment is essentially symptomatic. A physician should be consulted.</li> </ul>
Ingestion	<ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

#### Most important symptoms and effects, both acute and delayed

See Section 11

# Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

# **SECTION 5 Fire-fighting measures**

#### **Extinguishing media**

- Dry chemical powder.

# Special hazards arising from the substrate or mixture

·	
Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
Special protective equipment a	and precautions for fire-fighters
Fire Fighting	<ul> <li>When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.</li> <li>When heated to extreme temperatures, (&gt;1700 deg.C) amorphous silica can fuse.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear full body protective clothing with breathing apparatus.</li> </ul>
Fire/Explosion Hazard	<ul> <li>When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.</li> <li>When heated to extreme temperatures, (&gt;1700 deg.C) amorphous silica can fuse.</li> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Combustion products include: carbon dioxide (CO2) aldehydes isocyanates and minor amounts of</li> </ul>

When heated at high temperatures many isocyanates decompose rapidly generating a vapour which pressurises containers, possibly to the point

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

# Personal precautions, protective equipment and emergency procedures

hydrogen cyanide nitrogen oxides (NOx) silicon dioxide (SiO2)

other pyrolysis products typical of burning organic material.

May emit corrosive fumes.

of rupture. Release of toxic and/or flammable isocyanate vapours may then occur

See section 8

# **Environmental precautions**

See section 12

# Methods and material for containment and cleaning up

	<b>v</b> :
Minor Spills	Remove all ignition sources.     Clean up all spills immediately.
Major Spills	<ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Liquid Isocyanates and high isocyanate vapour concentrations will penetrate seals on self contained breathing apparatus - SCBA should be used inside encapsulating suit where this exposure may occur.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

# **SECTION 7 Handling and storage**

# Precautions for safe handling

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▶ Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Safe handling ▶ DO NOT allow clothing wet with material to stay in contact with skin ► Store in original containers. Other information

# Conditions for safe storage, including any incompatibilities

# Packaging as recommended by manufacturer. Suitable container ▶ Check all containers are clearly labelled and free from leaks. Secondary amines form salts with strong acids and can be oxidized to the corresponding nitrone using hydrogen peroxide, catalyzed by selenium

dioxide

The substance may be or contains a "metalloid"

► Keep containers securely sealed.

Metal can or drum

The following elements are considered to be metalloids; boron, silicon, germanium, arsenic, antimony, tellurium and (possibly) polonium The electronegativities and ionisation energies of the metalloids are between those of the metals and nonmetals, so the metalloids exhibit characteristics of both classes. The reactivity of the metalloids depends on the element with which they are reacting. Silicas:

- react with hydrofluoric acid to produce silicon tetrafluoride gas
- react with xenon hexafluoride to produce explosive xenon trioxide
- reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride (these halogenated materials are not commonplace industrial materials) and other fluorine-containing compounds
- ▶ may react with fluorine, chlorates
- re incompatible with strong oxidisers, manganese trioxide, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid, vinyl acetate
- may react vigorously when heated with alkali carbonates.
- Avoid strong acids, bases.
- Avoid reaction with water, alcohols and detergent solutions. Isocyanates are electrophiles, and as such they are reactive toward a variety of nucleophiles including alcohols, amines, and even water.
  - A range of exothermic decomposition energies for isocyanates is given as 20-30 kJ/mol.
  - ▶ The relationship between energy of decomposition and processing hazards has been the subject of discussion, it is suggested that values of energy released per unit of mass, rather than on a molar basis (J/g) be used in the assessment.

# **SECTION 8 Exposure controls / personal protection**

#### Control parameters

# Occupational Exposure Limits (OEL)

Storage incompatibility

# INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (not containing asbestos)	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (containing asbestos)	Not Available	Not Available	Not Available	Use asbestos limit
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Soapstone	20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Talc	Talc (containing no asbestos and less than 1% quartz) - respirable	2 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Ca; TWA 0.1 mg PAHs/m3 [Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)] See Appendix A See Appendix C
US OSHA Permissible Exposure Limits (PELs) Table Z-1	zeolites	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	zeolites	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	zeolites	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	zeolites	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available

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Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	zeolites	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica amorphous	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica amorphous	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	silica amorphous	Amorphous, including natural diatomaceous earth	80 (%SiO2) mg/m3 / 20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	silica amorphous	Silica, amorphous	6 mg/m3	Not Available	Not Available	Not Available

# **Emergency Limits**

Ingredient	TEEL-1	TEEL-2	TEEL-3
carbon black	9 mg/m3	99 mg/m3	590 mg/m3
piperazine	0.09 ppm	8.9 ppm	54 ppm
zeolites	30 mg/m3	330 mg/m3	2,000 mg/m3
zeolites	30 mg/m3	330 mg/m3	2,000 mg/m3
triethylenediamine	5.1 mg/m3	56 mg/m3	340 mg/m3
glycerol, ethoxylated, propoxylated	30 mg/m3	330 mg/m3	2,000 mg/m3
silica amorphous	18 mg/m3	200 mg/m3	1,200 mg/m3
silica amorphous	18 mg/m3	100 mg/m3	630 mg/m3
silica amorphous	120 mg/m3	1,300 mg/m3	7,900 mg/m3
silica amorphous	45 mg/m3	500 mg/m3	3,000 mg/m3
silica amorphous	18 mg/m3	740 mg/m3	4,500 mg/m3

Ingredient	Original IDLH	Revised IDLH
Talc	1,000 mg/m3	Not Available
carbon black	1,750 mg/m3	Not Available
piperazine	Not Available	Not Available
zeolites	Not Available	Not Available
triethylenediamine	Not Available	Not Available
polypropylene glycol glyceryl ether	Not Available	Not Available
glycerol, ethoxylated, propoxylated	Not Available	Not Available
silica amorphous	3,000 mg/m3	Not Available
trimethylolpropane propoxylated	Not Available	Not Available
tallow dimethylbenzylammonium chloride/ hectorite	Not Available	Not Available
MDI-glycerol, propoxylated. ethoxylated	Not Available	Not Available

# Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating Occupational Exposure Band Limit		
piperazine	E	≤ 0.01 mg/m³	
triethylenediamine	Е	≤ 0.01 mg/m³	
tallow dimethylbenzylammonium chloride/ hectorite	E	≤ 0.01 mg/m³	
MDI-glycerol, propoxylated. ethoxylated	≤ 0.1 ppm		
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the		

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

# **Exposure controls**

# Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

Individual protection measures, such as personal protective equipment









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Safety glasses with side shields. Eye and face protection Chemical goggles. Skin protection See Hand protection below The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance Hands/feet protection and has therefore to be checked prior to the application. Isocyanate resistant materials include Teflon, Viton, nitrile rubber and some PVA gloves. Protective gloves and overalls should be worn as specified in the appropriate national standard. **Body protection** See Other protection below Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalentl Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges Other protection Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. Overalls. P.V.C apron.

#### Respiratory protection

Type AK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

If inhalation risk above the TLV exists, wear approved dust respirator.

Use respirators with protection factors appropriate for the exposure level.

- ▶ Up to 5 X TLV, use valveless mask type; up to 10 X TLV, use 1/2 mask dust respirator
- ▶ Up to 50 X TLV, use full face dust respirator or demand type C air supplied respirator
- ▶ Up to 500 X TLV, use powered air-purifying dust respirator or a Type C pressure demand supplied-air respirator
- Over 500 X TLV wear full-face self-contained breathing apparatus with positive pressure mode or a combination respirator with a Type C positive pressure supplied-air full-face respirator and an auxiliary self-contained breathing apparatus operated in pressure demand or other positive pressure mode
- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

# **SECTION 9 Physical and chemical properties**

# Information on basic physical and chemical properties

Appearance	Black Liquid		
	l		
Physical state	Liquid	Relative density (Water = 1)	1.1-1.5
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

#### **SECTION 10 Stability and reactivity**

Reactivity	See section 7
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Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> </ul>	
Possibility of hazardous reactions	See section 7	
Conditions to avoid	See section 7	
Incompatible materials	See section 7	
Hazardous decomposition products	See section 5	

#### **SECTION 11 Toxicological information**

information on toxicological en	ects
	The metacial is not thought to produce advance health effects or initiation of the province project out that (as alongified by EQ Diseasting using animal

# Inhaled

models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

The vapour/mist may be highly irritating to the upper respiratory tract and lungs; the response may be severe enough to produce bronchitis and pulmonary oedema. Possible neurological symptoms arising from isocyanate exposure include headache, insomnia, euphoria, ataxia, anxiety neurosis, depression and paranoia.

#### Ingestion

The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.

#### Skin Contact

Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.

There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Non-ionic surfactants cause less irritation than other surfactants as they have less ability to denature protein in the skin.

Open cuts, abraded or irritated skin should not be exposed to this material

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

# Eye

Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

Non-ionic surfactants can cause numbing of the cornea, which masks discomfort normally caused by other agents and leads to corneal injury. Irritation varies depending on the duration of contact, the nature and concentration of the surfactant.

#### ,

There is sufficient evidence to suggest that this material directly causes cancer in humans.

Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.

Secondary amines may react with nitrites to form potentially carcinogenic N-nitrosamines

Crystalline silicas activate the inflammatory response of white blood cells after they injure the lung epithelium. Chronic exposure to crystalline silicas reduces lung capacity and predisposes to chest infections.

Amorphous silicas generally are less hazardous than crystalline silicas, but the former can be converted to the latter on heating and subsequent cooling. Inhalation of dusts containing crystalline silicas may lead to silicosis, a disabling lung disease that may take years to develop. Soluble silicates do not exhibit sensitizing potential. Testing in bacterial and animal experiments have not shown any evidence of them causing mutations or birth defects.

# Chronic

Persons with a history of asthma or other respiratory problems or are known to be sensitised, should not be engaged in any work involving the handling of isocyanates.

The chemistry of reaction of isocyanates, as evidenced by MDI, in biological milieu is such that in the event of a true exposure of small MDI doses to the mouth, reactions will commence at once with biological macromolecules in the buccal region and will continue along the digestive tract prior to reaching the stomach.

Prolonged or repeated skin contact may cause degreasing, followed by drying, cracking and skin inflammation.

All workers involved in the production and use of zeolite-containing products are potentially exposed to erionite, a fibrous form of zeolite, which is mined with deposits of other zeolites. Animal testing showed that injection of erionite through the abdominal or pleural cavity caused scarring and cancers.

	TOXICITY	IRRITATION
WoodWeld™ Syringe - Part B	Not Available	Not Available
	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
Talc	Inhalation(Rat) LC50: >2.1 mg/l4h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>	
	TOXICITY	IRRITATION
carbon black	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >2000 mg/kg <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 4000 mg/kg <sup>[2]</sup>	Eye (rabbit): 0.25 mg/24h SEVERE Nil reported
piperazine	Oral (Rat) LD50: 1900 mg/kg <sup>[2]</sup>	Eye (rabbit): 0.75 mg SEVERE
		Skin (rabbit): 500 mg open mild

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TOXICITY  proteptione glycer g		I			
triently/encodamines  TOSICITY  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  Dermal (2x800 LDSD - 505 mg/kg <sup>-11</sup> TOSICITY  Dermal (2x800 LDSD - 505 mg/kg <sup>-11</sup> TOSICITY  Dermal (2x800 LDSD - 1000 mg/kg <sup>-11</sup> TOSICITY  Dermal (2x800 LDSD - 1000 mg/kg <sup>-11</sup> TOSICITY  Dermal (2x800 LDSD - 1000 mg/kg <sup>-11</sup> Dermal (2x800 LDSD - 1000 mg/kg <sup>-11</sup> TOSICITY  Dermal (2x800 LDSD - 1000 mg/kg <sup>-11</sup> Dermal (2x800 LDSD - 1000 mg/kg <sup>-11</sup> TOSICITY  Dermal (2x800 LDSD - 1000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD - 2000 mg/kg <sup>-11</sup> TOSICITY  RETATION  Dermal (2x800 LDSD		TOXICITY	IRRITATION		
Introductivity (2006) 2-0.00 mg/sgl <sup>-1</sup> TOUCITY  Demail (crabit) 1250 - 2000 mg/sgl <sup>-1</sup> First abstract (crabit) 250 - 2000 mg/sgl <sup>-1</sup> Doug (Real LSS) - 700 mg/sgl <sup>-1</sup> Shit salveres effect deserved (intellings <sup>-1</sup> )  TOUCITY  IRRITATION  TOUCITY  IRRITATION  TOUCITY  IRRITATION  Spycerol, abstraction 150 - 2000 mg/sgl <sup>-1</sup> Eye no asswere effect deserved (intellings <sup>-1</sup> )  Inhabitativity 1500 - 2000 mg/sgl <sup>-1</sup> Eye no asswere effect deserved (intellings <sup>-1</sup> )  TOUCITY  IRRITATION  Shit salveres effect deserved (intellings <sup>-1</sup> )  TOUCITY  IRRITATION  TOUCITY  IRRITATION  Spycerol, abstraction 1500 - 2000 mg/sgl <sup>-1</sup> TOUCITY  IRRITATION  TOUCITY  IRRITATIO	P4	Dermal (rabbit) LD50: >2000 mg/kg <sup>[2]</sup>	Not Available		
TOUGITY   RRITATION   Eye relability is my maximum   Eye relability	zeolites	Inhalation(Rat) LC50: >0.5 mg/l4h <sup>[2]</sup>			
Dermal (nabis) LDSG > 2000 mg/kg <sup>[1]</sup>   Eye (nabis) 25 mg - medicante		Oral (Rat) LD50: >2000 mg/kg <sup>[1]</sup>			
Dermal (nabis) LDSG > 2000 mg/kg <sup>[1]</sup>   Eye (nabis) 25 mg - medicante		TOXICITY	IRRITATION		
trimethyleographies  polypropylese glycol glycertyl  polypropylese glycol glycol glycol  polypropylese glycol  polyprop					
CAR (Ruly LD50. 1700 mg/kg <sup>21</sup> POXICITY  Immaly propyrene glyces   glycerol, ethosylated, propyrene glyces   glycerol, glyce	triethylenediamine				
TOXICITY					
dermal (roll LDSD: >2000 mg/kg <sup>-1</sup>   Eye no adverse effect observed (roll initiating) <sup>(1)</sup>		3 3	70		
dermal (roll LDSD: >2000 mg/kg <sup>-1</sup>   Eye no adverse effect observed (roll initiating) <sup>(1)</sup>					
Inhabition(Rai) LC50: >50 mg/Lth/Pl   Oral (Rat) LC50: >50 mg/kg/Fl   Oral (Rat) LC50: >50000 mg					
Cord (Rari) LDS0: 2000 mg/kg <sup>[1]</sup> Silin (rabble): 500 mg (open)-mild Silin (rabble):	nolypropylene alycol alyceryl				
glycerol, ethocylated, propoxylated propoxyl			· ·		
TOXICITY   IRRITATION   IRRIT		Oral (Rat) LD50: >2000 mg/kg <sup>[1]</sup>			
Dermal (rabbit) LDSC > 5000 mg/kg <sup>[2]</sup>   Not Available			Skin: no adverse effect observed (not irritating) <sup>[1]</sup>		
Definition (adult) (1950 - 10000 mg/kg <sup>2</sup>		TOXICITY	IRRITATION		
TOXICITY    IRRITATION   Eye (rabbit): non-irritating " [Grace]   Inhalation(Rat) LC50: >0.09-0.04 mg/stgl*1   Eye: no adverse effect observed (not irritating)*1   Eye: no adverse effect observed (not irritating)*1   Eye: no adverse effect observed (not irritating)*1   Skin (rabbit): non-irritating "   Skin: no adverse effect observed (not irritating)*1   Eye: not adverse effect observed (not irritating)*1   Eye: not adverse effect observed (not irrita		Dermal (rabbit) LD50: >5000 mg/kg <sup>[2]</sup>	Not Available		
dermal (rat) LD50: >2000 mg/kg <sup>1</sup> ] Eye (rabbit): non-irritating ** [Grace]  Inhaliation(Rat) LC50: >0.09e.0.84 mg/lahl*11 Eye: no adverse effect observed (not irritating)!*1  TOXICITY IRRITATION  dimethylbenzylammonium chloridd/ hetcorite  **TOXICITY IRRITATION  dimethylbenzylammonium chloridd/ hetcorite  **TOXICITY IRRITATION  **TOXICITY IRRITATION  dimethylbenzylammonium chloridd/ hetcorite  **TOXICITY IRRITATION  **TOXICITY IRRIT	propoxylateu	Oral (Rat) LD50: >10000 mg/kg <sup>[2]</sup>			
dermal (rat) LD50: >2000 mg/kg <sup>1</sup> ] Eye (rabbit): non-irritating ** [Grace]  Inhaliation(Rat) LC50: >0.09e.0.84 mg/lahl*11 Eye: no adverse effect observed (not irritating)!*1  TOXICITY IRRITATION  dimethylbenzylammonium chloridd/ hetcorite  **TOXICITY IRRITATION  dimethylbenzylammonium chloridd/ hetcorite  **TOXICITY IRRITATION  **TOXICITY IRRITATION  dimethylbenzylammonium chloridd/ hetcorite  **TOXICITY IRRITATION  **TOXICITY IRRIT		TOVICITY	IDDITATION		
Inhalation(Rat) LC50: >0.09-0.84 mg/sh <sup>11</sup> Eye: no adverse effect observed (not irritating) <sup>11</sup> Oral (Rat) LD50: >1000 mg/kg <sup>11</sup> Skin (rabbit): non-irritating *  Skin: no adverse effect observed (not irritating) <sup>11</sup> TOXICITY IRRITATION  dimethylopropane propoxylated  **TOXICITY IRRITATION  dimethylopropane propoxylated ethory and the state of the state					
Crall (Rat) LD50: >1000 mg/kg <sup>[1]</sup>   Skin: no adverse effect observed (not irritating) <sup>[1]</sup>	-::				
TOXICITY  demail (rai) LD50: >2000 mg/kg <sup>[1]</sup> Toxicity  Skin (na dverse effect observed (not irritating) <sup>[1]</sup> Skin (na dverse effect observed (not irritating) <sup>[1]</sup> Skin (na dverse effect observed (not irritating) <sup>[1]</sup> TOXICITY  Toxicity  Oral (Rat) LD50: >2000 mg/kg <sup>[2]</sup> Non-irritant (skin)  TOXICITY  Oral (Rat) LD50: >2000 mg/kg <sup>[2]</sup> Non-irritant (skin)  TOXICITY  Oral (Rat) LD50: >2000 mg/kg <sup>[2]</sup> Not Available  Logend:  1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances  CARBON BLACK  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexathydrate (RTECS No.: TM 0850000)  for piperiazine: Exposure to piperazine and its salls has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for responsibly on lover doses.  PIPERAZINE  PIPERAZINE  PIPERAZINE  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce callular DNA.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce callular DNA.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce callular DNA.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce callular DNA.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce callular DNA.  The material may produce moderate eye irritation leading to inflammation. Re	silica amorphous				
trimethylolpropane propoxylated  TOXICITY  demal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Dral (Rat) LD50: >2000 mg/kg <sup>[1]</sup> Eye: no adverse effect observed (not irritating) <sup>[1]</sup> Skin (rabbit): non-irritant OECD 404*  Skin: no adverse effect observed (not irritating) <sup>[1]</sup> TOXICITY  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Non-irritant (skin)  TOXICITY  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Non-irritant (skin)  TOXICITY  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Non-irritant (skin)  TOXICITY  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Not Available  1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances  CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6ly900-l Nil reported No significant acute toxicological data identified in literature search.  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexarhydrate [RTECS No. TM 0850000]  for piperazine: Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lover doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye bindness and irreparable damage.  The material may produce respiratory trac litritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  The material may produce respiratory trac litritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at leas					
dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup> Eye (rabbit): non-irritant OECD 405*  Oral (Rat) LD50: >2000 mg/kg <sup>[1]</sup> Eye: no adverse effect observed (not irritating) <sup>[1]</sup> Skin (rabbit): non-irritant OECD 404*  Skin: no adverse effect observed (not irritating) <sup>[1]</sup> TOXICITY  IRRITATION  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Non-irritant (skin)  TOXICITY  IRRITATION  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Non-irritant (skin)  TOXICITY  IRRITATION  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Not Available  Legend:  1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances  CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6h/90D-1 Nil reported No significant acute toxicological data identified in literature search.  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate [RTECS No.: TM 0850000]  for piperazine:  Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye biindness and irreparable damage.  The material may be irritating to the eye, with protonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to callular DNA.  The material may produce moderate eye irrita			Skin: no adverse effect observed (not irritating).		
trimethylolpropane propoxylated  Oral (Rat) LD50: >2000 mg/kg <sup>[1]</sup> Eye: no adverse effect observed (not irritating) <sup>[1]</sup> Skin (rabbit): non-irritant OECD 404*  Skin: no adverse effect observed (not irritating) <sup>[1]</sup> TOXICITY  IRRITATION  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Non-irritant (skin)  TOXICITY  IRRITATION  Non-irritant (skin)  TOXICITY  IRRITATION  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Not Available  Legend:  1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances  CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6h/90D-1 Nil reported No significant acute toxicological data identified in literature search.  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate [RTECS No: TM 0850000]  for piperazine:  Exposure to piperazine: and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye bilindness and irreparable damage.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  The material may produce respiratory tract irritation leading to inflammation. Repeated or prolonged exposure to irrita		TOXICITY	IRRITATION		
CARBON BLACK   Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported No significant acute toxicological data identified in literature search.    WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.		dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): non-irritant OECD 405*		
tallow dimethylbenzylammonium chloride/ hectorite  MDI-glycerol, propoxylated. ethoxylated		Oral (Rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>		
tallow dimethylbenzylammonium chloride/ hectorite  MDI-glycerol, propoxylated. ethoxylated  Legend:  1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances  CARBON BLACK  CARBON BLACK  Inhalation (rat) TCLc: 50 mg/m3/6h/90D-l Nil reported No significant acute toxicological data identified in literature search.  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate [RTECS No: TM 0850000] for piperazine: Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye bindness and irreparable damage.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.					
MDI-glycerol, propoxylated. ethoxylated   TOXICITY			Skin: no adverse effect observed (not irritating) <sup>[1]</sup>		
TOXICITY  IRRITATION  Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup> Not Available  Legend:  1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances  CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6h/90D-l Nii reported No significant acute toxicological data identified in literature search.  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate [RTECS No.: TM 0850000]  for piperazine:  Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  Inhalation (-) LC50: >18.3 mg/l/thr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.		TOXICITY	IRRITATION		
CARBON BLACK  CARBON BLACK  CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported No significant acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances  CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported No significant acute toxicological data identified in literature search.  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate (RTECS No.: TM 0850000) for piperazine:  Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyrol L-56 Data for Niay Polyrol LG:168 * BASE Multranol 9175 SDS		Oral (Rat) LD50: >20000 mg/kg <sup>[2]</sup>	Non-irritant (skin)		
CARBON BLACK  CARBON BLACK  CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported No significant acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances  CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported No significant acute toxicological data identified in literature search.  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate (RTECS No.: TM 0850000) for piperazine:  Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyrol L-56 Data for Niay Polyrol LG:168 * BASE Multranol 9175 SDS	MDI altroprol proposition	TOXICITY	IRRITATION		
Legend:  1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances  CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6h/90D-1 Nil reported No significant acute toxicological data identified in literature search.  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate [RTECS No.: TM 0850000] for piperazine:  Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.					
CARBON BLACK  Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported No significant acute toxicological data identified in literature search.  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate [RTECS No.: TM 0850000]	l ogand:		toxicity 2. Value obtained from manufacturar's SDS. Unless otherwise		
CARBON BLACK  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate [RTECS No.: TM 0850000] for piperazine:     Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).     Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.     Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage.     The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.     The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.     NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  ZEOLITES  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyol L-56 Data for Niay Polyol L 5-56 Da	Legena.	, ,	•		
CARBON BLACK  WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate [RTECS No.: TM 0850000] for piperazine:     Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).     Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.     Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage.     The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.     The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.     NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  ZEOLITES  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyol L-56 Data for Niay Polyol L 5-56 Da					
WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.  for hexahydrate [RTECS No.: TM 0850000] for piperazine: Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma). Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses. Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  ZEOLITES  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niax Polyol L-56 Data for Niax Polyol LG-168 * RASE Multrangl 9175 SDS	CARBON BLACK	Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported No significant	acute toxicological data identified in literature search.		
for piperazine: Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  ZEOLITES  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niax Polyol L-56 Data for Niax Polyol LG-168 * BASE Multranol 9175 SDS		WARNING: This substance has been classified by the IARC as Grou	up 2B: Possibly Carcinogenic to Humans.		
Exposure to piperazine and its salts has clearly been demonstrated to cause asthma in occupational settings. No NOAEL can be estimated for respiratory sensitisation (asthma).  Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyol L-56 Data for Niay Polyol LG-168 * BASE Multrapol 9175 SDS					
Although the LD50 levels indicate a relatively low level of oral acute toxicity (LD50 1-5 g/kg bw), signs of neurotoxicity may appear in humans after exposure to lower doses.  Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage.  The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyol L-56 Data for Niay Polyol LG-168 * BASE Multrapol 9175 SDS					
after exposure to lower doses. Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  ZEOLITES Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace] The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyol L-56 Data for Niay Polyol LG-168 * BASE Multrapol 9175 SDS					
and may cause eye blindness and irreparable damage. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivities. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  ZEOLITES Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace] The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyol I -56 Data for Niay Polyol I G-168 * BASE Multrapol 9175 SDS	DIDED 4 7111E	after exposure to lower doses.			
conjunctivitis. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  ZEOLITES Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyol I -56 Data for Niay Polyol I G-168 * BASE Multrapol 9175 SDS	PIPERAZINE				
The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.  NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.  ZEOLITES  Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyol L-56 Data for Niay Polyol LG-168 * BASE Multrapol 9175 SDS		The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.			
cellular DNA.  ZEOLITES Inhalation (-) LC50: >18.3 mg/l/1hr for sodium aluminosilicate, zeolite A: Skin (rabbit): non-irritating Eye (rabbit): slight [Grace]  TRIETHYLENEDIAMINE The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niay Polyol L-56 Data for					
TRIETHYLENEDIAMINE  The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  POLYPROPYLENE GLYCOL  Data for Niax Polyol L-56 Data for Ni		NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to			
POLYPROPYLENE GLYCOL  Data for Niax Polyol L-56 Data for Niax Polyol LG-168 * BASE Multranol 9175 SDS	ZEOLITES				
POLYPROPYLENE GLYCOL  Data for Niax Polyol I -56 Data for Niax Polyol I G-168 * BASE Multranol 9175 SDS	TRIETHYLENEDIAMINE				

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SILICA AMORPHOUS	Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS]  The substance is classified by IARC as Group 3:  NOT classifiable as to its carcinogenicity to humans.  Evidence of carcinogenicity may be inadequate or limited in animal testing.		
TRIMETHYLOLPROPANE PROPOXYLATED	Sensitization: Mouse Local Lymph Node Assay (LLNA)/mouse: Non-sensitizing. (OECD Guideline 429) * BASF MSDS		
TALLOW DIMETHYLBENZYLAMMONIUM CHLORIDE/ HECTORITE	For organoclay Acute toxicity: Organoclay compounds are not expe skin and cause only minimal eye irritation in humans	0 , ,	nouth or through the skin. They are not irritating to the
MDI-GLYCEROL, PROPOXYLATED. ETHOXYLATED	* SDS Araldite AW 8680 Isocyanate vapours are irritating to the airways and consciousness and fluid in the lungs. Nervous syste anxiety, depression and paranoia.		neezing, gasping, severe distress, even loss of headache, sleep disturbance, euphoria, inco-ordination,
WoodWeld™ Syringe - Part B & SILICA AMORPHOUS	For silica amorphous:  Derived No Adverse Effects Level (NOAEL) in the range of 1000 mg/kg/d.  In humans, synthetic amorphous silica (SAS) is essentially non-toxic by mouth, skin or eyes, and by inhalation. Epidemiology studies show little evidence of adverse health effects due to SAS.		
PIPERAZINE & TRIETHYLENEDIAMINE & MDI-GLYCEROL, PROPOXYLATED. ETHOXYLATED	The following information refers to contact allergens as a group and may not be specific to this product.  Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema.  Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms.  Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema.  Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure.  Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition		
PIPERAZINE & TRIETHYLENEDIAMINE & POLYPROPYLENE GLYCOL GLYCERYL ETHER	known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound.  The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.		
GLYCEROL, ETHOXYLATED, PROPOXYLATED & MDI-GLYCEROL, PROPOXYLATED. ETHOXYLATED	Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products.  Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers.		
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	<b>✓</b>
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×

Legend:

Aspiration Hazard

X − Data either not available or does not fill the criteria for classification
 v − Data available to make classification

# **SECTION 12 Ecological information**

Mutagenicity

# Toxicity

WoodWeld™ Syringe - Part B	Endpoint	Test Duration (hr)	Species		Value	Source
	Not Available	Not Available	Not Available		Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	\	/alue	Source
	EC50	96h	Algae or other aquatic plants	7	'202.7mg/l	2
Talc	LC50	96h	Fish	8	39581.016mg/l	2
	NOEC(ECx)	720h	Algae or other aquatic plants	9	918.089mg/l	2
carbon black	Endpoint	Test Duration (hr)	Species	Valu	e	Source
	EC50	72h	Algae or other aquatic plants	>0.2	mg/l	2
	EC50	48h	Crustacea	33.0	76-41.968mg/l	4
	LC50	96h	Fish	>100	mg/l	2
	NOEC(ECx)	24h	Crustacea	3200	lmg/l	1
	Endpoint	Test Duration (hr)	Species		Value	Source
	BCF	1008h	Fish		<0.3-0.9	7
	EC50	72h	Algae or other aquatic plants		153.1mg/l	2
piperazine	EC50	48h	Crustacea		21mg/l	2
	LC50	96h	Fish		>100mg/l	2
	NOEC(ECx)	Not Available	Fish		>1mg/l	2

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# WoodWeld™ Syringe - Part B

	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>1000mg/l	2
zeolites	EC50	48h	Crustacea	100-1800mg/l	1
	EC50	96h	Algae or other aquatic plants	18mg/l	1
	ErC50	72h	Algae or other aquatic plants	18mg/l	1
	LC50	96h	Fish	1000mg/l	1
	EC10(ECx)	96h	Algae or other aquatic plants	4.9mg/l	1
	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<1.3	7
	EC50	72h	Algae or other aquatic plants	110mg/l	2
triethylenediamine	EC50	48h	Crustacea	92mg/l	Not Available
	LC50	96h	Fish	1730mg/l	Not Available
	EC50(ECx)	48h	Crustacea	92mg/l	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	0.2-2.2	7
olypropylene glycol glyceryl	EC50	72h	Algae or other aquatic plants	>100mg/l	2
ether	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	>1000mg/l	2
	NOEC(ECx)	504h	Crustacea	>=10mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
glycerol, ethoxylated, propoxylated	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Sourc
	EC50	72h	Algae or other aquatic plants	14.1mg/l	2
	EC50	48h	Crustacea	>86mg/l	2
silica amorphous	EC50	96h	Algae or other aquatic plants	217.576mg/l	2
	LC50	96h	Fish	1033.016mg/l	2
	EC0(ECx)	24h	Crustacea	>=10000mg/l	1
	Endpoint	Test Duration (hr)	Species	Value	Sourc
	EC50	72h	Algae or other aquatic plants	84mg/l	2
trimethylolpropane propoxylated	EC50	48h	Crustacea	>100mg/l	2
propoxylateu	LC50	96h	Fish	>100mg/l	2
	NOEC(ECx)	504h	Crustacea	>=8.5mg/l	2
tallow	Endpoint	Test Duration (hr)	Species	Value	Source
dimethylbenzylammonium chloride/ hectorite	Not Available	Not Available	Not Available	Not Available	Not Availabl
MDL-alveered proposedated	Endpoint	Test Duration (hr)	Species	Value	Source
MDI-glycerol, propoxylated. ethoxylated	Not	Not Available	Not Available	Not Available	Not Available

Microbial methylation plays important roles in the biogeochemical cycling of the metalloids and possibly in their detoxification. Many microorganisms (bacteria, fungi, and yeasts) and animals are now known to biomethylate arsenic, forming both volatile (e.g., methylarsines) and nonvolatile (e.g., methylarsonic acid and dimethylarsinic acid) compounds.

For Surfactants: Kow cannot be easily determined due to hydrophilic/hydrophobic properties of the molecules in surfactants. BCF value: 1-350.

For Amorphous Silica: Amorphous silica is chemically and biologically inert. It is not biodegradable.

- Bioconcentration Data 8. Vendor Data

For Silica:

Environmental Fate: Most documentation on the fate of silica in the environment concerns dissolved silica, in the aquatic environment, regardless of origin, (man-made or natural), or structure, (crystalline or amorphous).

Terrestrial Fate: Silicon makes up 25.7% of the Earth's crust, by weight, and is the second most abundant element, being exceeded only by oxygen.

DO NOT discharge into sewer or waterways.

#### Persistence and degradability

• •					
Ingredient	Persistence: Water/Soil	Persistence: Air			
piperazine	LOW	LOW			
triethylenediamine	HIGH	HIGH			

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# WoodWeld™ Syringe - Part B

Ingredient	Persistence: Water/Soil	Persistence: Air
silica amorphous	LOW	LOW

#### Bioaccumulative potential

Ingredient	Bioaccumulation
piperazine	LOW (BCF = 3.9)
triethylenediamine	LOW (BCF = 13)
polypropylene glycol glyceryl ether	LOW (BCF = 7)
silica amorphous	LOW (LogKOW = 0.5294)

# Mobility in soil

Ingredient	Mobility
piperazine	LOW (KOC = 52.71)
triethylenediamine	LOW (KOC = 95.14)
silica amorphous	LOW (KOC = 23.74)

# **SECTION 13 Disposal considerations**

#### Waste treatment methods

- ▶ Containers may still present a chemical hazard/ danger when empty.
- ▶ Return to supplier for reuse/ recycling if possible.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. Product / Packaging disposal

- ▶ DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- **DO NOT** recycle spilled material
- Consult State Land Waste Management Authority for disposal.

# **SECTION 14 Transport information**

#### **Labels Required**

Marine Pollutant

Shipping container and transport vehicle placarding and labeling may vary from the below information. Products that are regulated for transport will be packaged and marked as Dangerous Goods in Limited Quantities according to US DOT, IATA and IMDG regulations. In case of reshipment, it is the responsibility of the shipper to determine the appropriate labels and markings in accordance with applicable transport regulations.

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

#### Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Talc	Not Available
carbon black	Not Available
piperazine	Not Available
zeolites	Not Available
triethylenediamine	Not Available
polypropylene glycol glyceryl ether	Not Available
glycerol, ethoxylated, propoxylated	Not Available
silica amorphous	Not Available
trimethylolpropane propoxylated	Not Available
tallow dimethylbenzylammonium chloride/ hectorite	Not Available
MDI-glycerol, propoxylated. ethoxylated	Not Available

# Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Talc	Not Available

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# WoodWeld™ Syringe - Part B

Ship Type Not Available trimethylolpropane propoxylated Not Available

# **SECTION 15 Regulatory information**

Product name

triethylenediamine

glycerol, ethoxylated,

propoxylated

silica amorphous

chloride/ hectorite MDI-glycerol, propoxylated.

ethoxylated

polypropylene glycol glyceryl

tallow dimethylbenzylammonium

carbon black

piperazine zeolites

ether

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

# Talc is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

Not Available

Not Available

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - Massachusetts - Right To Know Listed Chemicals

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

# carbon black is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

#### piperazine is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals US DOE Temporary Emergency Exposure Limits (TEELs)

zeolites is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US DOE Temporary Emergency Exposure Limits (TEELs)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

# triethylenediamine is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

# polypropylene glycol glyceryl ether is found on the following regulatory lists

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants US EPCRA Section 313 Chemical List

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

# glycerol, ethoxylated, propoxylated is found on the following regulatory lists

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants US DOE Temporary Emergency Exposure Limits (TEELs)

# US EPCRA Section 313 Chemical List

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

# silica amorphous is found on the following regulatory lists

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US DOE Temporary Emergency Exposure Limits (TEELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US NIOSH Recommended Exposure Limits (RELs)

US NIOSH Carcinogen List

US OSHA Carcinogens Listing

# WoodWeld™ Syringe - Part B

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Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - California - Biomonitoring - Priority Chemicals

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US - Massachusetts - Right To Know Listed Chemicals

# trimethylolpropane propoxylated is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

# tallow dimethylbenzylammonium chloride/ hectorite is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

# MDI-glycerol, propoxylated. ethoxylated is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

# **Federal Regulations**

# Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
n contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	Yes
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	No
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

#### US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

None Reported

# **State Regulations**

# US. California Proposition 65

WARNING: This product can expose you to chemicals including carbon black, silica amorphous, which are known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

#### **National Inventory Status**

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (Talc; carbon black; piperazine; triethylenediamine; polypropylene glycol glyceryl ether; glycerol, ethoxylated, propoxylated; trimethylolpropane propoxylated; tallow dimethylbenzylammonium chloride/ hectorite; MDI-glycerol, propoxylated. ethoxylated)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (glycerol, ethoxylated, propoxylated; MDI-glycerol, propoxylated. ethoxylated)
Japan - ENCS	No (zeolites; glycerol, ethoxylated, propoxylated; tallow dimethylbenzylammonium chloride/ hectorite; MDI-glycerol, propoxylated. ethoxylated)

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National Inventory	Status
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	No (MDI-glycerol, propoxylated. ethoxylated)
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (polypropylene glycol glyceryl ether; trimethylolpropane propoxylated; MDI-glycerol, propoxylated. ethoxylated)
Vietnam - NCI	Yes
Russia - FBEPH	No (tallow dimethylbenzylammonium chloride/ hectorite; MDI-glycerol, propoxylated. ethoxylated)
Legend:	Yes = All CAS declared ingredients are on the inventory  No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

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

Revision Date	08/22/2023
Initial Date	09/20/2020

#### **SDS Version Summary**

Version	Date of Update	Sections Updated
2.3	08/21/2023	Toxicological information - Chronic Health, First Aid measures - First Aid (skin), Identification of the substance / mixture and of the company / undertaking - Synonyms, Name

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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