MSDS

MATERIAL SAFETY DATA SHEET

Safety data sheet
PLI 03 – CURATIVE

1. Identification of the substance / preparation and company

Product name: Plastic repair 'slow' (3.5min.) black - 50ml CHEM

Article code: PLI 03

Supplier :
Chemicar Europe
Westpoort 11-13
B-2070 Zwijndrecht
Tel.: +(32) (3) 234 87 80
Fax: +(32) (3) 234 87 89
E-mail: info@chemicar.eu

Emergency n° : +(32) 0473 96 91 32

2. Composition and information on ingredients

Chemical characterization
Mixture containing: polyetherpolyols/amines.

Substance/preparation
Preparation

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU regulations or National regulations.

3. Hazards identification

The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification
This product is not classified according to EU legislation.
Note: See section 11 for more detailed information on health effects and symptoms.

4. First-aid measures

Inhalation:
Move exposed person to fresh air. Keep person warm at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Ingestion:
Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Obtain medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact:
Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

Eye contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

5. Fire-Fighting measures

Extinguishing media
SMALL FIRE: use dry chemical powder
LARGE FIRE: use water spray, fog or foam. Do not use water jet.

Suitable
Use an extinguishing agent suitable for the surrounding fire

Special exposure hazards
In a fire or if heated, a pressure increase will occur and the container may burst.
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Thermal decomposition products
These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2 etc) Some metallic oxides

Protection of fire-fighters
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions:
Keep unnecessary personnel away. Use suitable protective equipment

Environmental precautions:
Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Inform relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air)

Methods for cleaning up:
Stop leak if without risk. Move containers from spill area. Approach the release from upwinf. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material eg. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling
Put on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from compatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Exposure limit values	not available
Engineering measures	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products and before eating, smoking and using the lavatory and at the end of the day.
Personal protective equipment	
Respiratory protection	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hand protection	Impervious gloves. Recommended: nitrile rubber
Eye protection	Safety eyewear complying with an approved standard should be used when an risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Skin protection	overalls buttoned to the neck and wrist. Lab coat.

9. Physical and chemical properties

General information	
Appearance: Colour:	liquid black
Melting point: Boiling point:	- -
Flash point:	Closed cup: >93°C
Vapour pressure at 20°C:	<0.021kPa
Density at 20°C:	1.225 g/cm³ (DIN 53217)
Evaporation rate	<1 compared with diethyl ether
Explosion limits	-
Solubility in water	Insoluble in cold water

10. Stability and reactivity

Stability
The product is stable

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Conditions to avoid
Not available

Thermal decomposition products
These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2)
Some metallic oxides.

11. Toxicological information

Potential acute health effects

Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may delayed following exposure.
Ingestion	No known significant effects or critical hazards
Skin contact	No known significant effects or critical hazards
Eye contact	No known significant effects or critical hazards

Potential chronic health effects

Chronic effects	No known significant effects or critical hazards
Carcinogenicity	No known significant effects or critical hazards

Ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Carbon black	-	2B	-	-	-	-

Mutagenicity	No known significant effects or critical hazards
Teratogenicity	No known significant effects or critical hazards
Developmenal effects	No known significant effects or critical hazards
Fertility effects	No known significant effects or critical hazards

Over-exposure signs/symptoms

Target organs	Contains materials which causes damage to the following organs: cardiovascular system, upper respiratory tract, eye, lens or cornea

12. Ecological information

Ecotoxicity data
Acute toxicity: not available

13. Disposal considerations

Methods of disposal
The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

European waste catalogue
08 04 10

Hazardous waste
Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Additional information
08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

14. Transport information

Transport by land ADR/RID:

Not classified as dangerous

Transport by sea IMDG:

Not classified as dangerous

Transport by air ICAO-TI and IATA-DGR:

Not classified as dangerous

15. Regulatory information

Product use
Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use. - Industrial applications.

EU regulations

Risk phrase	This product is not classified according to EU legislation
Safety phrase	S24/25 – avoid contact with skin and eyes
Additional waring phrase	Contains piperazine. May produce an allergic reaction.

16. Other information

This information is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties. It is in the users responsibility to satisfy himself as to the suitability and completeness of such information for is own particular use.

Safety data sheet
PLI 03 – PREPOLYMER

1. Identification of the substance / preparation and company

Product name: Plastic repair 'slow' (3.5min.) black - 50ml CHEM

Article code: PLI 03

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2. Composition and information on ingredients

Substance/preparation
Preparation

Ingredient name	CAS number	% by weight	EC number	Classification
Diphenylmethane-diisocyante		25-40		Xn; R20 Xi ; R36/37/38 R42/43
Silicic acid, aluminium calcium sodium salt	1344-01-0	5-10	215-685-3	not classified

3. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification
Harmful

R20	harmful by inhalation
R36/37/38	irritating to eyes, respiratory system and skin
R4243	may cause sensitization by inhalation and skin contact

Note: See section 11 for more detailed information on health effects and symptoms.

4. First-aid measures

Inhalation:

Move exposed person to fresh air. Keep person warm at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure.

Ingestion:

Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Obtain medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact:

Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

Eye contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

5. Fire-Fighting measures

Extinguishing media

SMALL FIRE: use dry chemical powder
LARGE FIRE: use water spray, fog or foam. Do not use water jet.

Suitable

Use an extinguishing agent suitable for the surrounding fire

Special exposure hazards

In a fire or if heated, a pressure increase will occur ad the container mau burst.
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Thermal decomposition products

These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2 etc), halogenated compounds, some metallic oxides

Protection of fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions:
Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air)

Methods for cleaning up:
If emergency personnel are unavailable, contain spilt material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilt material or otherwise contain material to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal. Do not keep the container sealed. The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

7. Handling and storage

Handling
Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation or when handling hot material. Do not breathe vapour or mist. Wash thoroughly after handling

Storage
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Ingredient name	**Occupational exposure limits**
Diphenylmethanediisocyanate	**NAOSH** OELV: 0.07 mg/m³ 15 minute/minutes OELV: 0.02 mg/m³ 8 hour/hours
Silicic acid, aluminium, calcium Sodium, salt	**NAOSH** OELV: 2 mg/m³ 8 hour/hours

Engineering measures	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Hygiene measures	Wash hands, forearms and face after handling compounds and before eating, smoking and using the lavatory and at the end of the day.

Personal protective equipment

Respiratory protection	A respirator is not needed under normal and intended conditions of product use. Wear appropriate respirator when ventilation is inadequate. Vapour respirator (when handling hot material)
Hand protection	Impervious gloves. Recommended: nitrile rubber
Eye protection	splash goggles
Skin protection	overalls buttoned to the neck and wrist. Lab coat.

9. Physical and chemical properties

General information	
Appearance: Colour:	liquid beige
Melting point: Boiling point:	- >200°C
Flash point:	closed cup: >93°C
Density at 20°C:	1.288 g/cm³
Evaporation rate	< 1 compared with diethyl ether
Explosion limits	-
Solubility in water	Insoluble in cold water
Viscosity	Dynamic: 20000 cP

10. Stability and reactivity

Stability
The product is stable

Materials to avoid
Reactive or incompatible with the following materials: oxidizing materials, acids, alkalis and moisture

Thermal decomposition products
These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2)
Some metallic oxides.

11. Toxicological information

Potential acute health effects

Inhalation Harmful by inhalation. Irritating to respiratory system. May cause sensitization by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion irritating to mouth, throat and stomach
Skin contact iritating to skin. May cause sensitization by skin contact
Eye contact iritating to eyes

Acute toxicity

Ingredient name	Test	Result	Route	Species
Diphenylmethanediisocante	LD 50	9200 mg/kg	oral	rat
	LD50	2200 mg/kg	oral	mouse

Potential chronic health effects

Chronic effects once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels
Carcinogenicity no known significant effects or critical hazards
Mutagenicity no known significant effects or critical hazards
Developmental and tera-togenic effects no known significant effects or critical hazards
Reproductive toxicity no known significant effects or critical hazards

Over exposure signs/symptoms

Inhalation adverse symptoms may include the following: respiratory tract irritation, coughing, wheezing and breathing difficulties, asthma
Skin contact irritation, redness.
Eye contact irritation, redness, watering
Target organs Contains material which causes damage to the following organs: lungs, cardiovascular system, upper respiratory tract, eye, lens or cornea, nose/sinuses, throat

12. Ecological information

Ecotoxicity data
Acute toxicity: not available

Ingredient name	Aquatic half-life	Photolysis	Biodegradability
Diphenylmethanediisocyanate	-	-	not readily
	(contact with water produces CO2 gas and polyrea Degradation products solid, insoluble in water)		

13. Disposal considerations

Methods of disposal
The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Empty containers retain product residue and can be hazardous. Residues in empty containers should be neutralized with decontaminant: isopropanol/ammonia, aqueous solution

European waste catalogue
08 05 01

Hazardous waste
yes

Additional information
08 05 01 waste isocyantes

14. Transport information

Transport by land ADR/RID:

Not classified as dangerous

Transport by sea IMDG:

Not classified as dangerous

Transport by air ICAO-TI and IATA-DGR:

Not classified as dangerous

15. Regulatory information

Product use
Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use. - Industrial applications.

EU regulations

Hazard symbol

Harmful

Risk phrase

R20	harmful by inhalation
R36/37/38	irritating to eyes, respiratory system and skin
R42/43	may cause sensitization by inhalation and skin contact

Safety phrase

S23	do not breathe fumes
S24	avoid contact with skin
S26	in case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37/39	wear suitable gloves and eye/face protection
S45	in case of accident or if you feel unwell, seek medical advice immediately
S51	use only in well-ventilated areas

Contains: diphenylmethanediisocyante

Additional warning phrases:
Contains isocyantes. See information supplied by the manufacturer. This information is provided by the current MSDS.

16. Other information

This information is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties. It is in the users responsibility to satisfy himself as to the suitability and completeness of such information for is own particular use.

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