

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name	DURA INDUSTRIAL CONCRETE PRIMER (PART B) (DI032)
Synonyms	Accelerated amidoamine curing agent
Dura Paints (PTY) Ltd	5 Wakefield Road, Founders View South, Edenvale, 1610, South Africa.
Contact us on	+27 11 452-5221

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Class	Curing agent
Classification	Liquid Form
Comment	
Hazardous and or other relevant components.	Harmful. Reproduction Category 3

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrases(s)	Weight %
4,4'-Isopropylidenebisphenol	80-05-7 201-245-8	Xn	R37; R41; R43; R62	< 10
DIETHYLENETRIAMINE	111-40-0 203-865-4	C	R21/22; R34; R43	< 10
Tetraethylenepentamine	112-57-2 203-986-2	C, Xn, N	R21/22; R34; R43; R51/53	< 10

Human health hazards	Risk of serious damage to eyes. May cause sensitization by skin contact. Possible risk of impaired fertility. Irritation to eyes and skin.
Safety hazards	Not classified as flammable but will burn.
Environmental Effects	Dangerous for the environment. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Physical and chemical hazards	Formation of toxic products through combustion
R-Phrases:	R38 - Irritating to skin R41 - Risk of serious damage to eyes R43 - May cause sensitisation by skin contact R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation R52/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment R62 - Possible risk of impaired fertility
S-Phrases:	S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S28A - After contact with skin, wash immediately with plenty of soap and water. S29 - Do not empty into drains S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection S46 - If swallowed, seek medical advice immediately and show this container or label S61 - Avoid release to the environment. Refer to special instructions/safety data sheet

3. HAZARDS IDENTIFICATION

Human health hazards	Risk of serious damage to eyes. May cause sensitization by skin contact. Possible risk of impaired fertility. Irritating to eyes and skin.
Safety hazards	Not classified as flammable but will burn.
Environmental hazards	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURE

General advice	Get medical attention immediately if symptoms occur attention.
Inhalation	Remove to fresh air. If rapid recovery does not occur, obtain medical attention.
Skin contact	DO NOT DELAY.
Inhalation	Remove contaminated clothing. Wash skin with water using soap if available. If persistent irritation occurs, obtain medical attention.
Eye contact	DO NOT DELAY. Flush eye with water. OBTAIN MEDICAL ATTENTION IMMEDIATELY.
Ingestion	DO NOT DELAY. <i>Do not induce vomiting. Give nothing by mouth.</i> OBTAIN MEDICAL ATTENTION IMMEDIATELY.
Notes to physician	May cause severe eye irritation.
Symptoms	Risk of serious damage to eyes. Irritating to skin.
Treatment	Pre-existing skin or respiratory disorders may be aggravated by exposure to this product. If skin sensitisation has developed and a causal relationship has been confirmed, further exposure should not be allowed. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Use foam, water spray or water mist.
Unsuitable Extinguishing Media	Water in a jet.
Special Hazards	Not classified as flammable but will burn.
Fighting	Hazardous combustion products may include oxides of nitrogen, carbon monoxide, unidentified organic compounds
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes, clothing Evacuate the area of all non-essential personnel. Shut off leaks, if possible without personal risk.
Environmental Precautions:	Do not allow product to enter sewage drains, soil or watercourses. Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers
Clean up method - small spillage	Absorb or contain liquid with sand, earth or spill control material. Shovel up and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or over drum. Scrub contaminated surfaces with detergent solution Retain washings as contaminated waste.
Clean-up methods - large spillage	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:	
Technical measures:	Precautions to be taken in handling and storage as per packaging instructions.
Safe handling:	Observe all relevant local regulations. Avoid contact with eyes. Use in well ventilated area
Hygiene measures:	Take of immediately all contaminated clothing. Avoid contact with the skin and the eyes. Avoid drink or smoke. Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.
Packaging materials:	Keep in original container. Keep container tightly closed and in a cool, well-ventilated place. Keep container dry.
Storage conditions:	Store in accordance with local regulations. Store in a cool, dry, well ventilated area away from direct sun, sources of heat, and severe cold.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components with workplace control parameters	Regulation / Update	Exposure time	Value	Remarks
4,4'-Isopropylidenebisphenol	ACGIH			None established.
DIETHYLENETRIAMINE	ELV (FI)/1998	Time Weighted Average (TWA):	1 ppm 4,3 mg/m ³	
	ELV (FI)/1998	Short Term Exposure Limit (STEL):	3 ppm 13 mg/m ³	
	ELV (FI)/1998	Skin designation:		Can be absorbed through the skin.
Tetraethylenepentamine	ACGIH			None established.

Respiratory protection

In case of insufficient ventilation use suitable respiratory protection.
If risk of inhalation, use approved respirator (e.g. CEN, NIOSH/OSHA, AS) as required to prevent over exposure. Use an air-supplied respirator where high concentrations are expected, or an air-purifying respirator for organic vapours (with combined particulate filter if mist is present). Note: an air supplied respirator should always be used in confined spaces.

Skin

Avoid contact as far as possible. Observe the rules of hygiene. Wash before eating, drinking or smoking. Use barrier cream and gloves.
Material of gloves for long term application (BTT>480min):
Butyl rubber Ethyl Vinyl Alcohol Laminate (EVAL) gauntlet type
Material of gloves for short term/splash application (10min<BTT<480min): Nitrile rubber gauntlet type
Use gloves approved to relevant standards e.g. EN 374 (Europe), ASTM F739 (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.

Protective measures

Standard issue work clothes
Safety boots - chemical resistant without lace holes
Wear PVC or nitrile rubber gloves, gauntlet type, PVC one-piece suit with integral hood, safety boots - rubber, knee length, full face-piece respirator with organic vapour canister NPF 400

Eyes

In a confined space, wear self-contained breathing apparatus open circuit type NPF 2000
Avoid direct contact. Never touch eyes with dirty hands or gloves. Use safety glasses.

Ingestion

Monogoggles

Appropriate engineering controls

Observe the rules of hygiene. Wash hands before eating, drinking or smoking.

Engineering measures

Frequently monitor and control the working atmosphere. Provide appropriate exhaust ventilation at machinery.

Protective measures

Use local exhaust ventilation.

Environmental exposure controls

Observe all relevant local regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid	Odour	Aminic
Colour:	Amber	Viscosity @ 25 °C	700 mPa.s at 25 °C
Water solubility	Partially soluble.	Boiling point	> 207 °C
Flash point	> 93 °C	Lower explosion limit	1,4 %(V)
Vapour pressure	< 13,3 Pa at 20 °C	Partition coefficient	
Density	976 kg/m ³ at 25 °C	(noctanol/water)	Data not available.

10. STABILITY AND REACTIVITY

Stable under normal conditions.

No reaction with fire-fighting water.

Incompatibility (material to avoid)

Conditions to avoid

Avoid contact with strong oxidising agents.

Acids, Oxidising agents.

Keep away from heat, sparks, open flame and strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	Expected to be of low toxicity, LD50 > 2000 mg/kg.
Acute dermal toxicity	Expected to be of low toxicity, LD50 > 2000 mg/kg.
Eye irritation	Expected to be a severe irritant.
Skin irritation	Expected to be irritant.
Sensitization	Expected to be a skin sensitizer.
Mutagenicity	A component has exhibited evidence for weak mutagenic activity in standard in vitro test systems.
Other information	Repeated exposure to high vapor concentrations of Tetraethylenepentamine (TEPA) may cause injury to the liver, kidney, and respiratory system.
Respiratory irritation	Inhalation of vapours or mists may cause irritation.
Basis for assessment	Information given is based on product data, a knowledge of the components and the toxicology of similar products.
Human effects	See Section 4 for information regarding acute effects to humans.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability	Expected to be not readily biodegradable.
Bioaccumulation	Contains components with the potential to bioaccumulate.

Ecotoxicity effects

Toxicity to fish	Expected to be slightly toxic, 10 < LC/EC/IC 50 ≤ 100 mg/l.
Toxicity to algae	Expected to be slightly toxic, 10 < LC/EC/IC 50 ≤ 100 mg/l.
Acute toxicity invertebrates	Expected to be slightly toxic, 10 < LC/EC/IC 50 ≤ 100 mg/l.
Mobility	Partly dissolves, but a significant proportion will remain after one day. If product enters soil, one or more constituents will be mobile and may contaminate groundwater.
Sewage treatment	Expected to be slightly toxic, 10 < LC/EC/IC 50 ≤ 100 mg/l.
Basis for assessment	Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar products.

13. DISPOSAL CONSIDERATIONS

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. Exercise caution in disposal of used containers

Product disposal	Recover or recycle if possible. Otherwise: Incineration with wet scrubbing facilities.
Container disposal:	Dispose to licensed disposal contractor. Keep container labelled until cleaned and then remove or deface labels. Drain container thoroughly. Rinse three times with suitable solvent. Treat rinsing's as for product disposal. Send to drum recoverer or metal reclaimer.
Local legislation	The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.

14. TRANSPORT INFORMATION

ADR: Regulation:	NOT REGULATED FOR TRANSPORT
RID: Regulation:	NOT REGULATED FOR TRANSPORT
ADNR: Regulation:	NOT REGULATED FOR TRANSPORT
ICAO/IATA-DGR: Regulation:	NOT REGULATED FOR TRANSPORT
IMDG: Regulation:	NOT REGULATED FOR TRANSPORT

15. REGULATORY INFORMATION

Classification: Classified as hazardous
Toxic to Reproduction Category 3
Dangerous for the environment.



Xn - Harmful

R-Phrases
R38 - Irritating to skin
R41 - Risk of serious damage to eyes
R43 - May cause sensitisation by skin contact
R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation
R52/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62 - Possible risk of impaired fertility

S-Phrases
S2 - Keep out of reach of children.
S24/25 - Avoid contact with eyes and skin

16. OTHER INFORMATION

This data is offered in good faith as typical values and not as a product specification. No warranty, whether expressed or implied is made. All information is given in good faith, but without guarantee in respect of accuracy and no responsibility is accepted for errors or omissions or the consequences thereof. The current version of this MSDS and a Technical Data Sheet (TDS) are available from Dura Paints website - www.durapaints.co.za. This product must only be used in conjunction with Dura Concrete Primer (Part A) in the ratios specified in the Technical Data Sheet (TDS) – Dura Concrete Primer (Part A & B) / DI038.

C	=	Ceiling limit	NEGL	=	Negligible
EST	=	Estimated	NF	=	None found
NA	=	Not applicable	UNKN	=	Unknown
NE	=	None established	REC	=	Recommended
ND	=	None determined	V	=	Recommended by vendor
TS	=	Trade secret	SKN	=	Skin
R	=	Recommended	MST	=	Mist

END OF MSDS