

SAFETY DATA SHEET B 51 Part B

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	B 51 Part B
SUPPLIER	ARDEX ENDURA (INDIA) PRIVATE LIMITED Corporate Office & Regd. Office: Unit No. 406 & 407, "Brigade Rubix", No. 20, Yeshwanthapur Hobli, HMT Campus, Bangalore - 560022. Karnataka, INDIA. CIN No: U24233KA1997PTC022383 Tel: +91 80 66746500 Email: customercare@ardexendura.com Visit us: www.ardexendura.com
DATE	06/09/2021

2. HAZARDS IDENTIFICATION

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Acute Tox.	4 (oral)	Acute toxicity
Acute Tox.	4 (dermal)	Acute toxicity
Skin Corr./Irrit.	1B	Skin corrosion/irritation
Eye Dam,/Irrit.	1	Serious eye damage/eye irritation
Skin Sens.	1A	Skin sensitization
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Aquatic Chronic	3	Hazardous to the aquatic environment - chronic

Label elements



Signal Word: Danger

Hazard Statement:	
H312	Harmful in contact with skin.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H314	Causes severe skin burns and eye damage.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P260	Do not breathe dust or mist.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P270	Do not eat, drink or smoke when using this product.
P264	Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

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P310
Immediately call a POISON CENTER or doctor/physician.

P305 + P351 + P338
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing.	
	Rinse skin with water/shower.	
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.	
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.	

Precautionary Statements (Storage): P405 Store locked up.

Precautionary Statements (Disposal):

P501

Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. COMPOSITION / INFORMATION ON INGREDIENTS

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Weight %	Chemical name
2855-13-2	>= 99.7 - <= 100.0%	3-aminomethyl-3,5,5-trimethylcyclohexylamine
133117-08-5	>= 0.1 - <= 0.1%	Cyclohexanecarbonitrile, 5-amino-1,3,3-trimethyl-

4. FIRST-AID MEASURES

General advice:

Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing ifnecessary. Immediate medical attention required.

If on skin:

Wash affected areas thoroughly with soap and water. Remove contaminated clothing. Immediatemedical attention required.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water.Immediate medical attention required.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or giveanything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote. Pulmonary odema prophylaxis. Medical monitoring for at least 24 hours.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture Hazards during fire-fighting:No particular hazards known.

Advice for fire-fighters Protective equipment for fire-fighting: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information: Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation.

Environmental precautions This product is not regulated by RCRA. This product is not regulated by CERCLA ('Superfund').

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up Spills should be contained, solidified, and placed in suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling Containers should be opened carefully in well-ventilated areas to avoid static discharge.

Protection against fire and explosion: No explosion proofing necessary.

Conditions for safe storage, including any incompatibilities Segregate from acids and acid forming substances. Segregate from isocyanates. Segregate from epoxides.

Suitable materials for containers: Carbon steel (Iron), Stainless steel 1.4401, Stainless steel 1.4301 (V2), High density polyethylene (HDPE), glass, Low density polyethylene (LDPE)

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Keep tanks under inert gas. Keep away from sources of ignition - No smoking. Keep container tightly closed and in a cool place.

Storage stability: Storage duration: 24 Months From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

No occupational exposure limits known.

Advice on system design: Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment Respiratory protection: Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection: Chemical resistant protective gloves, Suitable materials, polyvinylchloride (Pylox)

Eye protection: Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures: Eye wash fountains and safety showers must be easily accessible. Avoid inhalation of vapours/mists.

Wear protective clothing as necessary to prevent contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid	
Odour:	amine-like	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
Colour:	colourless to yellow	
pH value:	11.6	
	(8.5 g/l, 20°C)	
Freezing point:	10°C	
	(760 mmHg)	
Boiling point:	247°C	
	(760 mmHg)	
Flash point:	112°C	(open cup)
	Literature data.	

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Upper explosion limit: For liquids not relevant forclassification and labelling. Autoignition: 380 °C (DIN 51794) Vapour pressure: 0.0157 hPa (measured) (20°C) dynamic (measured) Density: 0.92 g/cm3 (20°C) Relative density: 0.92 g/cm3 (20°C) Partitioning coefficient- 0.99 (20°C) octanol/water (log Pow): (23°C) (Directive 92/69/EEC,A.8) Self-ignition temperature: notself-igniting (Directive 92/69/EEC,A.8) Thermal decomposition: < 400°C (DSC (DIN 51007)) No exothermic decomposition within the mentioned temperature range. No decomposition if used as directed. It is not a self-decompositional substance. Viscosity, dynamic: 18 mPa.s (20°C) Viscosity, kinematic: 19 mm2/s (OECD 114) (20°C) Viscosity, kinematic: 19 mm2/s Solubility in water: approx. 492 g/1 (238°C) Molar mass: 170.30 g/mol Value can be approximated fromHenry's Law Constant	Flammability: Lower explosion limit:	Product is combustible. For liquids not relevant forclassification and labelling. The lower explosion point may be 5 - 15 Cbelow the flash point.	
(20°C) dynamic Density: 0.92 g/cm3 (20°C) Relative density: 0.924 (20°C) Partitioning coefficient- octanol/water (log Pow): 0.99 (23°C) Self-ignition temperature: notself-igniting Thermal decomposition: < 400°C (DSC (DIN 51007)) No exothermic decomposition within the mentioned temperature range. No decomposition if used as directed. It is not a self- decompositional substance. Viscosity,dynamic: 18 mPa.s (20°C) Viscosity, kinematic: 19 mm2/s (20°C) Solubility in water: approx. 492 g/1 (23.8°C) Molar mass: 170.30 g/mol Evaporation rate: Value can be approximated fromHenry's Law Constant		For liquids not relevant forclassification and labelling.	
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(20°C) Viscosity, kinematic: 19 mm2/s (20°C) Solubility in water: approx. 492 g/l (23.8°C) Molar mass: 170.30 g/mol Evaporation rate: Value can be approximated fromHenry's Law Constant		decompositional substance.	
Viscosity, kinematic: 19 mm2/s (20°C) (OECD 114) Solubility in water: approx. 492 g/l (23.8°C) (OECD 114) Molar mass: 170.30 g/mol Evaporation rate: Value can be approximated fromHenry's Law Constant	Viscosity,dynamic:	18 mPa.s	
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Solubility in water:approx. 492 g/l (23.8°C)Molar mass:170.30 g/molEvaporation rate:Value can be approximated fromHenry's Law Constant	Viscosity, kinematic:		(OECD 114)
(23.8°C) Molar mass: 170.30 g/mol Evaporation rate: Value can be approximated fromHenry's Law Constant		(20°C)	
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Evaporation rate: Value can be approximated fromHenry's Law Constant			
	Molar mass:	170.30 g/mol	
or vanor pressure	Evaporation rate:	Value can be approximated fromHenry's Law Constant	
or vapor pressure.		or vapor pressure.	

10. CHEMICAL STABILITY AND REACTIVITY INFORMATION

Reactivity Corrosion to metals: No corrosive effect on metal.

Oxidizing properties: Based on its structural properties the product is not classified as oxidizing. Formation of flammable gases: Remarks: Forms no flammable gases in the presence of water.

Chemical stability The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions The product is chemically stable. Exothermic reaction. Reacts with acids.

Conditions to avoid Avoid all sources of ignition: heat, sparks, open flame. See MSDS section 7 - Handling and storage.

Incompatible materials strong oxidizing agents, acids, halogenated compounds acids

Hazardous decomposition products

Decomposition products: Hazardous decomposition products: carbon monoxide, carbon dioxide, nitrogen oxides

Thermal decomposition: < 400°C (DSC (DIN 51007)) No exothermic decomposition within the mentioned temperature range. No decomposition if used as directed. It is not a self-decompositionable substance.

11. TOXICOLOGICAL INFORMATION

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

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Acute Toxicity/Effects Acute toxicity Assessment of acute toxicity: Of moderate toxicity after short-term skin contact. Of moderate toxicity after single ingestion.

Oral

Type of value: Ld50 Species: rat (male) Value: 1,030 mg/kg (similar to OECD guideline 401)

Inhalation Type of value: Lc50 Species: rat Value: > 5.01 mg/l (OECD Guideline 403) Exposure time: 4 h

Dermal Type of value: Ld50 Species: rat Value: > 2,000 mg/kg (OECD Guideline 402) The European Union (EU) has classified this substance as 'harmful'.

Assessment other acute effects Assessment of STOT single: The available information is not sufficient for evaluation.

Irritation / corrosion Assessment of irritating effects: Corrosive! Damages skin and eyes.

Skin Species: rabbit Result: Corrosive.

Eye Species: rabbit Result: Risk of serious damage to eyes. Method: OECD Guideline 405

Sensitization Assessment of sensitization: Sensitization after skin contact possible.

Guinea pig maximization test Species: guinea pig Result: sensitizing Method: OECD Guideline 406

Aspiration Hazard No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity Assessment of repeated dose toxicity: The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

Genetic toxicity

Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in a test with mammals.

Carcinogenicity Assessment of carcinogenicity: Study scientifically not justified.

Reproductive toxicity

Assessment of reproduction toxicity: Repeated oral uptake of the substance did not cause damage to the reproductive organs. Study scientifically not justified.

Teratogenicity Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See MSDS section 11 - Toxicological information.

12. ECOLOGICAL INFORMATION

Aquatic toxicity Assessment of aquatic toxicity: Acutely harmful for aquatic organisms.

Toxicity to fish LC50 (96 h) 110 mg/l, Leuciscus idus (Directive 84/449/EEC, C.1, semistatic) Nominal values (confirmed by concentration control analytics)

Aquatic invertebrates EC50 (48 h) 23 mg/l, Daphnia magna (OECD Guideline 202, part 1, static) Nominal values (confirmed by concentration control analytics)

EC50 (48 h) 388 mg/l, Chaetogammarus marinus (semistatic) The details of the toxic effect relate to the nominal concentration.

Aquatic plants EC50 (72 h) > 50 mg/l (growth rate), Scenedesmus subspicatus (Directive 88/302/EEC, part C, p.89) Nominal concentration.

EC10 (72 h) 11.2 mg/l (growth rate), Scenedesmus subspicatus (Directive 88/302/EEC, part C, p.89) Nominal concentration.

Chronic toxicity to fish Study scientifically not justified.

Chronic toxicity to aquatic invertebrates No observed effect concentration (21 d) 3 mg/l, Daphnia magna (OECD Guideline 202, part 2, semistatic)

Nominal values (confirmed by concentration control analytics)

Assessment of terrestrial toxicity Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms DIN 38412 Part 8 bacterium/EC10 (18 h): 1,120 mg/l Nominal concentration.

Persistence and degradability

Assessment biodegradation and elimination (H2O) Not readily biodegradable (by OECD criteria).

Elimination information

8 % DOC reduction (28 d) (Directive 92/69/EEC, C.4-A) (aerobic, predominantly domestic sewage)

Assessment of stability in water In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis) < 10 % (5 d) (50 C, pH value 7), (OECD Guideline 111, pH 7)

Bioaccumulative potential

Bioaccumulation potential Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected. Literature data.

Mobility in soil

Assessment transport between environmental compartments The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.

Additional information

Adsorbable organically-bound halogen (AOX): This product contains no organically-bound halogen.

Other ecotoxicological advice:

Due to the pH-value of the product, neutralization is generally required before discharging sewageinto treatment plants. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

13. DISPOSAL CONSIDERATIONS

Waste disposal of substance:

Incinerate in a licensed facility. Do not discharge substance/product into sewer system.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. TRANSPORT INFORMATION	14. TRANSPORT INFORMATION		
Land transport USDOT Hazard class: 8 Packing group: III ID number: UN 228 Hazard label: 8 Proper shipping name: ISOPHO	9 RONEDIAMINE		
Sea transport IMDG			
Hazard class:8Packing group:IIIID number:UN 228Hazard label:8Marine pollutant:NOProper shipping name:ISOPHO	9 RONEDIAMINE		
Air transport IATA/ICAO			
Hazard class:8Packing group:IIIID number:UN 228Hazard label:8Proper shipping name:ISOPHO	9 RONEDIAMINE		
15. REGULATORY INFORMATION			
Federal Regulations			
Registration status: Chemical	TSCA, US	released / listed	
EPCRA 311/312 (Hazard categories):	Acute;		
State regulations State RTK NJ	CAS Number 2855-13-2	Chemical name 3-aminomethyl-3,5,5-trimethylcyclohexylamine	
NFPA Hazard codes: Health: 3 Fire: 1 Reactive	ity: 0 Special:		
HMIS III rating Health: 3 Flammability: 1	Physical hazard: 0		
Aquatic Acute 3 Hazardo	ding to UN GHS criteria (most recent vers us to the aquatic environment - acute us to the aquatic environment - chronic	ion):	
Skin Corr./Irrit.1BAcute Tox.4 (dermal)Acute Tox.4 (oral)Eye Dam./Irrit.1Skin Sens.1A	Skin corrosion/irritation Acute toxicity Acute toxicity Serious eye damage/eye irritation Skin sensitization		

16. OTHER INFORMATION

TRAINING ADVICE:

The details of this data sheet must be passed on to all personnel handling the product.

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.