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Revision Date 13-Mai-2021

Revision Number 2.1

1. Identification

Product identifier

Product Name Braskem Pluract 12+

Other means of identification

Product Code(s) P511

UN/ID no UN3082

Synonyms Mixture (Diisopropylbenzene and Benzene, (1-methylethyl)-, distillation residues)

Recommended use of the chemical and restrictions on use

Recommended use Agro and casting resin formulations
For professional use only
Industrial

Uses advised against No information available.

Details of the supplier of the safety data sheet

Supplier

Braskem S.A.
Av. Presidente Costa e Silva, 1178 –
Capuava
Santo André, SP, CEP: 09270-001, Brasil
Telephone: +55 (11) 4478-1777

E-mail address productsafety@braskem.com

Emergency telephone number

Emergency telephone CHEMTREC: (021) 3958-1449, (011) 4349-1359, 0800 892 0479 (BRAZIL)
1-703-741-5970 (INTERNATIONAL)

2. Hazard(s) identification

GHS Classification Most Important Hazards

Classification assessment completed in accordance with ABNT NBR 14725-2.

Acute toxicity - Oral	Category 5
Acute toxicity - Dermal	Category 5
Hazardous to the Aquatic Environment - Acute Hazard	Category 2
Hazardous to the Aquatic Environment - Chronic Hazard	Category 2
Flammable liquids	Category 4

Label elements

**Signal word**

Warning

Hazard statements

Combustible liquid

May be harmful if swallowed

May be harmful in contact with skin

Toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention

Avoid release to the environment

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Call a POISON CENTER or doctor if you feel unwell

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Collect spillage

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

No information available.

3. Composition/information on ingredients**Substance**

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Diisopropyl benzene	25321-09-9	50 - 55
Benzene, (1-methylethyl)-, distillation residues	68936-98-1	40 - 45

4. First-aid measures**Description of first aid measures****Inhalation**

Remove to fresh air.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media	No information available.
Specific hazards arising from the chemical	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.
Explosive properties	
Sensitivity to static discharge	Yes.
Sensitivity to mechanical impact	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material.
For emergency responders	Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.
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Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

Incompatible materials None known based on information supplied.

8. Exposure controls/personal protection

Exposure guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Impervious gloves. Polyvinyl chloride (PVC). Polyvinyl alcohol. For additional information, consult the PPE supplier.

Skin and body protection Impervious clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Environmental exposure controls No information available.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear liquid
Physical state	Liquid
Color	Yellowish
Odor	Strong aromatic

Odor threshold	No information available	
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	< -20 °C	None known
Initial boiling point and boiling range	200 - 350 °C	None known
Flash point	80 °C	CC (closed cup)
Evaporation rate	0.002	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	0.58 kPa	None known
Vapor density	No data available	None known
Relative density	0.876 @ 20 C - Density: 0.860 - 0.930 g/cm ³ (20/4°C)	None known
Water solubility	Insoluble in water	None known
Solubility(ies)	Benzene	None known
Partition coefficient	Log Kow: 3.7 to 5.3	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	2.62 - 4.65 mm ² /s @20/4°C	None known
Dynamic viscosity	2.15 - 4.19 mPa s @20/4°C	None known
Explosive properties	No information available.	
Oxidizing properties	No information available.	
<u>Other information</u>		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Liquid Density	No information available	
Bulk density	No information available	

10. Stability and reactivity

Reactivity

Reactivity None under normal use conditions.

Sensitivity to static discharge Yes.

Sensitivity to mechanical impact None.

Chemical stability

Stability Stable under normal conditions.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid Heat, flames and sparks.

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May be harmful in contact with skin.
Ingestion	May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral)	4,954.50 mg/kg.
ATEmix (dermal)	2,505.90 mg/kg.

Unknown acute toxicity

- 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Diisopropyl benzene	= 3900 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	> 2.1 mg/L (Rat) 6 h
Benzene, (1-methylethyl)-, distillation residues	= 7400 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.

STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	No information available.
Neurological effects	No information available.
Aspiration hazard	No information available.

12. Ecological information

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Unknown aquatic toxicity	0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Benzene, (1-methylethyl)-, distillation residues	EC50 = 11.3030 mg/L (72h, <i>Desmodesmus subspicatus</i>)	-	-	EC50 = 0.626 mg/L (48h, <i>Daphnia magna</i>)

Persistence and degradability	No information available.
Mobility in soil	No information available.
Bioaccumulation	No information available.

Chemical name	Partition coefficient
Benzene, (1-methylethyl)-, distillation residues	3.7 - 5.3

13. Disposal considerations

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. Transport information

LAND TRANSPORT - ANTT

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diisopropyl benzene)
UN Number	UN3082
Transport hazard class(es)	9
Packing group	III
Risk Number	90
Environmental hazards	Toxic to aquatic life with long lasting effects

MARITIME TRANSPORT - IMDG

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diisopropyl benzene)
UN Number	UN3082
Transport hazard class(es)	9
Packing group	III
Environmental hazards	Yes
Marine Pollutant	Yes
Transport in bulk according to Annex I or II of MARPOL 73/78 and	

the IBC or IGC Code:**Product name** Consult IMO guidelines before transporting in bulk**AIR TRANSPORT - IATA****Proper shipping name** Environmentally hazardous substance, liquid, n.o.s. (Diisopropyl benzene)**UN Number** UN3082**Transport hazard class(es)** 9**Packing group** III**Environmental hazards** Toxic to aquatic life with long lasting effects

This information does not intend to convey all specific regulatory or operational requirements/information relating to the product, therefore it cannot be considered exhaustive. Consult ANTT, IMO and ICAO regulations before transporting the product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. Regulatory information

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

Brazil

See section 8 for national exposure control parameters

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable

International Inventories

Contact supplier for inventory compliance status

16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGl(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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This safety data sheet was created pursuant to the requirements of: ABNT NBR 14725-4:2014, ABNT NBR 14725-2:2009.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text

End of Safety Data Sheet