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

1.1. Identification of substance or preparation:

Trade name: DOX-S
 Chemical name: Mixed N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine and styrenic product of N-1,3- dimethylbutyl-N'-phenyl-pphenylenediamine
 CAS number: 793-24-8
 Registration number: substance comes under the law of temporary period (registration deadline: 31.05.2018)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Aniozonant and antioxidant used in the production of natural and synthetic rubber and tires.

1.3. Details of the supplier of the safety data sheet

Manufacturer: DJCHEM CHEMICALS POLAND S.A.
 Name: Bogdan Domagała
 Address: 05-200 Wołomin, ul. Łukasiewicza 11A, Poland
 Tel./fax.: +48 (022) 787 63 46; +48 (022) 787 63 44
 E-mail: djchem@djchem.com.pl

1.4. Emergency telephone number:

+48 (022) 787 63 46
 +48 602 388 995

2. Hazards identification

Substance classification:

- Irritating product (R43).
- Has very toxic effect on water organisms; may cause long lasting unfavorable changes in water environment (R50/53).

Most important effects of action on man and environment:

Through the respiratory tract: Irritation of the respiratory system, cough, shortness of breath.
 Through the alimentary tract:..... Irritation of mucous membranes, throat, the esophagus and the alimentary canal.
 Skin contact:..... May cause allergic reactions in contact with skin.
 Eye contact:..... May cause eye irritation.
 Action on the environment:..... Very toxic to aquatic organisms. May cause long lasting unfavorable changes in water environment.

3. COMPOSITION / INFORMATION ON COMPONENTS

3.1. Dangerous components along with their classification:

	6PPD	s-6PPD
Classification	Irritating, hazardous for the environment	Irritating, hazardous for the environment
Symbols	Xi, N	Xi, N

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R phrases ^{*)}	22-43-50/53	22-43-50/53
S Phrases	60-24-61-37	60-24-61-37
Concentration,% by weight	60±2	40±2
EINECS No.	212-344-0	-
CAS no.	793-24-8	-
Index no.	-	-
Name consistent with UIPAC	N-1,3- dimethylbutyl-N'- phenyl-p- phenylenediamine	N-1,3- dimethylbutyl-N'- phenyl-p- phenylenediamine – styrenic products

^{*)} Full wording of R Phrases is specified in item 16 of the Material Safety Data Sheet.

4. FIRST AID

4.1. General notes:

General means of caution should be adhered to as when handling chemicals.
Remove contaminated clothing. Take the injured out from the place of exposure.

4.2. In contact through the respiratory tract:

Take the sufferer outdoor. When necessary, call for a doctor.

4.3. In contact with skin:

Rinse contaminated skin with plenty of water or water with soap. In the case of irritation, consult a doctor.

4.4. In eye contact:

Immediately rinse with plenty of water for at least 15 minutes with eyelids open widely. Remove contact lenses. When necessary, call for a doctor-ophthalmologist.

4.5. In case of consumption:

Give plenty of water to drink. Induce vomiting. Immediately call a doctor.

4.6. Possible symptoms and effects:

Irritation of eyes, respiratory system and skin.

4.7. Available means in the work environment:

Eyewash apparatus.
Use suitable protective clothing and suitable protective gloves.

5. PROCEDURES IN CASE OF FIRE

5.1. Suitable extinguishing agents:

Sprayed water, carbon dioxide, foam, fire extinguishing powders (ABC, BC).

5.2. Extinguishing agents that may not be used for safety reasons:

Dense water stream.

5.3. Specific hazards:

Combustible substance. Toxic gases are created as a result of burning. There is a risk of

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ignition of gases and vapors created as a result of fire.

5.4. Special protective equipment for fire-fighters:

Protective clothing resistant to chemicals. Personal respiratory apparatus.

5.5. Additional information:

Do not permit penetration of extinguishing agents to drains, ground and surface water. Isolate contaminated extinguishing water.

6. PROCEDURES IN CASE OF UNINTENDED RELEASE TO THE ENVIRONMENT

6.1. Personal precautions:

Use appropriate personal protection equipment (protective clothing, protective gloves). Avoid contact with skin, eyes and inhalation of dusts. Evacuate excess personnel.

6.2. Safety precautions with regard to environmental protection:

Isolate contaminated area from the environment. Do not release to the environment. Do not permit penetration to the drains, ground and surface water and soil.

Inform respective authorities in case of product release to water, soil or drains.

6.3. Cleaning methods:

Collect scattered material to labeled and locked containers. Clean the base and contaminated objects with a solvent (acetone, toluene, xylene), keeping all due precautions and then with water.

Forward any collected product not suitable for processing to an authorized waste recipient.

7. HANDLING OF SUBSTANCE / PREPARATEM AND ITS STORAGE

7.1. Handling of substance / preparation:

According to application. Avoid contact with skin and eyes. Avoid formation of dusts. Do not eat, drink or smoke when using. Do not keep and do not transport together with food products and animal fodder.

7.2. Storage:

Store in dry and well ventilated rooms. Protect against moisture and warming up to a temperature above 50o C. Keep away from sources of fire. Use means of caution preventing electrostatic discharges.

Appropriate material for packaging: Steel drums 200L .

7.3. Specific applications:

Use typical means of caution when handling chemicals in accordance with approved instructions.

8. EXPOSURE CONTROL AND MEANS OF PERSONAL PROTECTION

8.1. Threshold values of exposure:

Ingredient	CAS no.	Concentration % by weight	NDS mg/m ³	NDSCh mg/m ³	NDSP	DSB
6PPD	793-24-8	60±2	-	-	-	-
s-6PPD	-	40±2	-	-	-	-

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8.2. Exposure control:

8.2.1. Exposure control at workplace:

Ensure that there is sufficient general ventilation with exchange of air and / or ventilating hoods in the work area. Avoid contact with skin and eyes. Do not breathe dusts. Ensure a shower and a post for rinsing eyes.

a) Protection of the respiratory system:

In the event of inadequate ventilation, use suitable respiratory protection with filter for absorption of particles.

b) Protection of hands:

Use suitable plastic protective gloves (PVC, rubber).

c) Eye protection:

Use safety glasses (goggles) in the case of dust.

d) Skin protection:

Use natural protective clothing materials (cotton) or synthetic fibers and protective footwear.

e) Hygiene at work:

Do not eat, drink or smoke when working. Replace contaminated clothes. Wash hands and face during breaks at work and after its termination. Avoid contact with the product.

8.2.2. Environment exposure control:

Do not permit to penetrate to the environment.

8.3. Legal basis:

Binding national legal regulations.

8.4. Methods of assessment of exposure in the work environment:

Binding national methods of assessment of exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information:

Form: Sticky liquid
 Colour: brown-purple
 Smell: Aromatic

9.2. Important information concerning health, safety and the environment:

pH: No data
 Boiling point / Boiling range: No data
 Melting point: No data
 Flash point: No data
 Flammability: Yes
 Explosive properties: No data
 ▪ Upper explosive limit: No data
 ▪ Lower explosive limit: No data

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Oxidising properties:.....	No
Vapour pressure in 25° C:.....	Non applicable
Relative density in 20° C:	0,90 ÷ 1,10 g / cm ³
Solubility:	Acetone, toluene, xylene
Solubility in water in 20° C.....	Non-soluable
N-octanol / water breakdown factor:	No data
Viscosity:	No data
Vapor density (air = 1):	Non applicable
Vaporization velocity (diethyl ether = 1):	Non applicable

10. STABILITY AND REACTIVITY

The product is stable under specified conditions of storage (item 7 of the Material Safety Data Sheet).

10.1. Conditions to be avoided:

High temperature, moisture, oxygen.

10.2. Factors to be avoided:

Hazardous reactions can occur with strong oxidants.

10.3. Dangerous products of disintegration:

Carbon oxides, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

The product may cause irritation of the respiratory system, eyes and skin. Cough and shortness of breath may occur. Has harmful effect after consuming.

11.1. Health effects of acute exposure:

Ingredient	Nr CAS	Dose	Value	Unit
6PPD	793-24-8	LD ₅₀ (orally, rat)	893	mg/kg
		LD ₅₀ (skin, rabbit)	7940	mg/kg
		LC ₅₀ (inhalation, rat)	No data	-
s-6PPD	-	LD ₅₀ (orally, rat)	No data	No data
		LD ₅₀ (skin, rabbit)	No data	No data
		LC ₅₀ (inhalation, rat)	No data	No data

Through the respiratory system:..... Irritation of the respiratory system, cough, shortness of breath.

Through the alimentary tract:..... Irritation of mucous membranes, throat, the esophagus and the alimentary canal.

Skin contact:..... May cause skin chafes.

Eye contact:..... May cause eye irritation.

11.2. Health effects of chronic exposure:

Through the respiratory system (toxicity of repeating dose): No data.

Through the alimentary tract:..... No data.

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Skin contact:..... No data
 Irritating effect (on eyes, skin or the respiratory system):..... No data.
 Caustic effect:..... No data.
 Allergenic effect (on the skin, the respiratory system):..... May cause allergic reactions in contact with skin.
 Anesthetizing effect:..... No data.
 Carcinogenic effect: No data.
 Mutagenic effect: No data.
 Effect on reproduction capacity:..... No data.
 Toxikinetics, metabolism and placement:..... No data.

12. ECOLOGICAL INFORMATION

Do not permit to penetrate to waters, drains and soil.

12.1. Ecotoxicity (6PPD):

LC₅₀ (fish, 96 hours): No data
 EC₅₀ (daphnia, 48 hours) 0,23 mg/L

12.2. Mobility:

No data.

12.3. Stability and capacity of decomposition:

No data.

12.4. Biocumulation capacity:

Octanol-water breakdown factor (KOW): log P_{ow} = 4,68
 Bioconcentration factor (BCF): No data

12.5. Results of assessment of PBT property:

No data.

12.6. Other harmful effects:

Very toxic to aquatic organisms and the water environment.

13. WASTE HANDLING

13.1. Methods of removing the substance:

Do not dispose of the substance together with municipal waste. Do not permit contamination of ground and surface water. Destroy in adapted waste incinerating plants.

13.2. Methods of removing packaging contaminated with the substance:

Contaminated packaging to be treated as the product itself. Thoroughly rinse any packaging not fit for re-use with water and destroy in adapted plants.

13.3. Legal basis:

Binding national legal regulations.

14. INFORMATION ABOUT TRANSPORT

14.1. Road transport, railway and inland water transport (ADR / RID/ADNR/ADN):

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Class: 9
Stickers: 9
Proper transport name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, I.N.O. (Mixed N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine styrenic product of N-1,3- dimethylbutyl-N'-phenyl-pphenylenediamine)
Classification code: III
Classification code: M7
Hazard distinctive identification number: 90

14.2. Sea transport (IMDG):

UN Number 3082
Proper transport name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, I.N.O. (Mixed N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine styrenic product of N-1,3- dimethylbutyl-N'-phenyl-pphenylenediamine)
Class: 9
Packaging group: III
EMS/MFAG F-A S-F
Contaminates marine environment: Yes

14.3. Air transport (ICAO/IATA):

UN Number 3082
Proper transport name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, I.N.O. (Mixed N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine styrenic product of N-1,3- dimethylbutyl-N'-phenyl-pphenylenediamine)
Class: 9
Packaging group: III

15. INFORMATION REGARDING LEGAL REGULATIONS

15.1. Marking:

Product trade name: DOX-S
Chemical name: Mixed N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (6PPD) and styrenic product of N-1,3- dimethylbutyl-N'-phenyl-pphenylenediamine (s-6PPD)
Warning signs:



Phrases indicating type of hazard:

R22 Has harmful effect after ingestion
R43 May cause sensitization by skin contact.
R50/53 Has very toxic effect on water organisms; may cause long lasting unfavorable

Phrases determining conditions of safe use:

S24 Avoid contamination of skin.
S37 Wear suitable protection gloves.
S60 Remove the product and packaging as hazardous waste.

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Name, address and telephone number of the supplier:

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