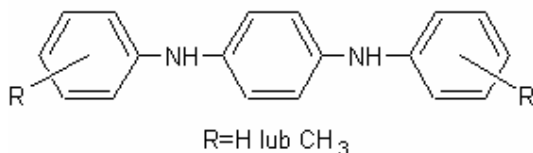
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<i>drawn up according to the Regulation (EC) No. 1907/2006 of the European Parliament and the Council of 18 December 2006 on registration, assessment, granting of permits and applied restrictions concerning chemicals (REACH) and establishing the European Chemicals Agency, changing Directive 1999/45/EC and repealing the Regulation of the Council (EEC) No. 793/93 and the Regulation of the Commission (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Directives of the Commission 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/WE</i>		

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

1.1. Identification of substance or preparation:

Commercial name: DOX-1

Chemical name: Mix of N, N-Diaryl-*p*-phenylenediamines (DAPD)



1.2. Application of the substance /preparation:

- Anti-ozonizer and antioxidant used in natural and artificial rubber, in tyres and in caoutchouc goods (portable tapes, hoses, pads, wiper blades, seals).

1.3. Identification of company:

Manufacturer: DJCHEM CHEMICALS POLAND S.A.

Surname: Bogdan Domagała

Address: 05-200 Wołomin, ul. Łukasiewicza 11A Poland

Phone/fax.: +48 (022) 787 63 46; +48 (022) 787 63 44

Email: djchem@djchem.com.pl

1.4. Alarm phone:

+48 (022) 787 63 46

+48 602 388 995

1.5. Registration deadline: 12-2010

1.6. Registration number: -

2. IDENTIFICATION OF HAZARDS

Classification of substance:

- 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.

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3. COMPOSITION / INFORMATION ON COMPONENTS

3.1. Dangerous components along with their classification:

	DAPD	Diphenylamine	Aniline	o-Toluidine
Classification	Irritating, hazardous for the environment	Toxic, hazardous for the environment	Toxic, hazardous for the environment	Toxic, hazardous for the environment
Symbols	Xi, N	T, N	T, N	T, N
R phrases *)	43-50/53	23/24/25-33-50/53	23/24/25-40-41-43-50-68-23/24/25/48	23/25-36-45-50
S Phrases	24-37-60	(1/2)28-36/37-45-60-61	(1/2) 26-27-36/37/39-45-61-63	53-45-61
Concentration,% by weight	> 90	<2	<0.1<0	<0.1<0
EINECS No.	273-227-8	204-539-4	200-539-3	202-429-0
CAS no.	68953-84-4	122-39-4	62-53-3	95-53-4
Index no.	-	612-026-00-5	612-008-00-7	612-091-00-X
Name consistent with UIPAC	1,4-Benzenediamine, N,N'-mixed Ph and tolyl derivs	Diphenylamine	Aniline	o-Toluidine
Name and registration number	-	-	-	-

*) 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.

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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 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 50° C. Keep away from sources of fire. Use means of caution preventing electrostatic discharges. Use means of caution when handling materials dusts of which are explosive.

Appropriate material for packaging: PE bags 25 kg or big-bags 1000 kg.

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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
DAPD	68953-84-4	> 90	-	-	-	-
Diphenylamine	122-39-4	<2	10	-	-	-
Aniline	62-53-3	<0.1<0	5	20	-	-
<i>o</i> -Toluidine	95-53-4	<0.1<0	3	9	-	-

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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information:

Form: Solid, granules (diameter <10 mm)<1
 Color: Grey-brown
 Smell: Aromatic

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

pH: No data
 Boiling point / Boiling range: No data
 Melting point: 87 ÷ 105° C
 Flash point: No data
 Flammability: Yes
 Explosive properties: No data
 • Upper explosive limit: No data
 • Lower explosive limit: No data
 Oxidising properties: No
 Vapour pressure in 25° C: Non applicable
 Relative density in 20° C: 1.00 ÷ 1.20 g / cm³
 Solubility: Acetone, toluene, xylene
 Solubility in water in 20° C: Insoluble
 N-octanol / water breakdown factor: log P_{ow} = 3.4 ÷ 4.3
 Viscosity: No data
 Vapor density (air = 1): Non applicable
 Vaporization velocity (diethyl ether = 1): Not applicable

9.3. Other information:

During use, explosive mixtures of dust with air may be formed.

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.

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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	CAS no.	Dose	Value	Unit
DAPD	68953-84-4	LD ₅₀ (orally, rat)	> 5000	mg/kg
		LD ₅₀ (skin, rabbit)	> 2000	mg/kg
		LC ₅₀ (inhalation, rat)	No data	-
Diphenylamine	122-39-4	LD ₅₀ (orally, rat)	1120	mg/kg
		LD ₅₀ (skin, rabbit)	> 5000	mg/kg
		LC ₅₀ (inhalation, rat)	No data	-
Aniline	62-53-3	LD ₅₀ (orally, rat)	250	mg/kg
		LD ₅₀ (skin, rabbit)	820	mg/kg
		LC ₅₀ (inhalation, mouse)	175	mg/L (4 hours)
o-Toluidine	95-53-4	LD ₅₀ (orally, rat)	670	mg/kg
		LD ₅₀ (skin, rabbit)	3250	mg/kg
		LC ₅₀ (inhalation, man)	25	mg/m ³

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.

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.

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12. ECOLOGICAL INFORMATION

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

12.1. Ecotoxicity:

LC₅₀ (fish, 14 days):..... 0.43 mg/L

EC₅₀ (daphnia, 48 hours)..... 1800 ppb

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} = 3.4 ÷ 4.3

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):

UN Number: 3077

Class: 9


Stickers: 9

Proper transport name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, I.N.O.
(Mix of N, N-Diaryl-*p*-phenylenediamines)

Packaging group: III

Classification code: M7

Hazard distinctive identification number: 90

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14.2. Sea transport (IMDG):

UN Number: 3077
 Proper transport name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 (Mixed Diaryl-*p*-phenylenediamines)
 Class: 9
 Packaging group: III
 EMS/MFAG F-A S-F
 Contaminates marine environment: No

14.3. Air transport (ICAO/IATA):

UN Number: 3077
 Proper transport name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 (Mixed Diaryl-*p*-phenylenediamines)
 Class: 9
 Packaging group: III

15. INFORMATION REGARDING LEGAL REGULATIONS

15.1. Marking:

Commercial name of the product: DOX-1
 Chemical name: Mix of N, N-Diaryl-*p*-phenylenediamines
 EINECS number: 273-227-8
 Warning signs:



Xi Irritating product



N Product hazardous for the environment

Symbol / Text specifying the meaning of the warning sign:

Xi Irritating product.
N Product hazardous for the environment.

Phrases indicating type of hazard:


R43 May cause sensitization by skin contact.
R50/53 Has very toxic effect on water organisms; may cause long lasting unfavorable changes in water environment.

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.

Name, address and telephone number of the supplier:

DJCHEM CHEMICALS POLAND S.A.
 05-200 Wołomin, ul. Łukasiewicza 11A Poland
 +48 (022) 787 63 46; +48 (022) 787 63 44

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15.2. Other regulations used when preparing the Card:

Legislation of the European Community:

- Regulation (EC) No. 1907/2006 of the European Parliament and the Council of 18 December 2006 on registration, assessment, granting of permits and applied restrictions concerning chemicals (REACH) and establishing the European Chemicals Agency, changing Directive 1999/45/EC and repealing the Regulation of the Council (EEC) No. 793/93 and the Regulation of the Commission (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Directives of the Commission 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
- Directive of the Commission 2004/73 on classification and labelling of hazardous substances – 29 adjustment.
- Directive of the Commission of 8 June 2000 no.2000/39/EC establishing the first list of indicative values of highest permitted concentrations in the work environment.
- Directive 2006/121/EC of the European Parliament and the Council relating to classification, packing and labeling of hazardous substances.
- Directive 2006/8/EC – adjustment of Directive 1999/45/EC concerning classification and labelling of preparations.
- Directive of the Commission 2001/60/EC on hazardous preparations.
- Directive of the Commission 2001/58/EC on Material Safety Data Sheets.
- Council Directive 91/689/EEC on hazardous waste.


National legislation:

- Binding national legal regulations.

16. OTHER INFORMATION

16.1. List of R Phrases used in item 2 and 3 of the Material Safety Data Sheet:

- | | |
|--------------|--|
| R20/21/22 | Has harmful effect through the respiratory tract, in contact with skin and after ingestion. |
| R23/25 | Has toxic effect through the respiratory tract and after ingestion. |
| R23/24/25 | Has toxic effect through the respiratory tract, in contact with skin and after ingestion. |
| R33 | Danger of cumulation in the organism. |
| R36 | Has an irritating effect on eyes. |
| R41 | Risk of serious eye damage. |
| R40 | Limited evidence of carcinogenic effect. |
| R43 | May cause sensitization by skin contact. |
| R45 | May cause cancer. |
| R48/23/24/25 | Has toxic effect through the respiratory tract, in contact with skin and after ingestion; creates a serious threat to health in consequence of long-term exposure. |
| R50 | Has very toxic effect on water organisms. |
| R50/53 | Has very toxic effect on water organisms; may cause long lasting unfavorable changes in water environment. |
| R68 | Possible risk of irreversible changes in health condition. |

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16.2. Advice concerning training:

Ensure required safety and ensure that the personnel understands hazards resulting from physical and chemical properties of the product.

16.3. Recommended restrictions for use:

Wear suitable protective clothing and suitable protective gloves.

16.4. Data sources used when preparing the Material Safety Data Sheet:

ESIS – European chemical Substances Information System (ECB).
IUCOLID – International Uniform Chemical Information Database.

16.4. Person drawing up the card:

Andrzej Nowiński

Date of preparation: 30-01-2008
Update date: -
Changes in the card: General update.

These data are based on the present state of our knowledge and experience. They are intended to describe the product as may be required by safety-related requirements in transport, distribution, use and storage and should not be regarded as binding guarantees of particular properties.