

# SAFETY DATA SHEET



## Phenothiazine D Prills

Version 5.0

Revision Date 06/24/2015

Print Date 06/25/2015

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Phenothiazine D Prills  
Substance name : Phenothiazine  
CAS-No. : 92-84-2  
EC-No. : 202-196-5

#### Manufacturer or supplier's details

Company : Allessa GmbH, 60382 Frankfurt am Main, Germany

Telephone : +49 69 4109 01  
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Prepared by : Allessa GmbH, Product Safety  
[sdb@allessa.com](mailto:sdb@allessa.com)  
+49 69 4109 2710 (8 a.m. - 4 p.m.)

#### Recommended use of the chemical and restrictions on use

Recommended use : Corrosion inhibitors and anti-scaling agents, Lubricants and lubricant additives, Process regulators, used in vulcanization or polymerization processes, Polymerisation inhibitor, Stabilisers

Restrictions on use : For professional and industrial installation and use only.

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	Prills
Colour	yellow-green
Odour	slight, original odour

#### GHS Classification

Acute toxicity (Oral) : Category 4  
Skin sensitisation (Dermal) : Category 1  
Specific target organ toxicity - repeated exposure (Oral) : Category 2  
Acute aquatic toxicity : Category 1  
Chronic aquatic toxicity : Category 1

#### GHS-Labeling - Label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H302 Harmful if swallowed.

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H317 May cause an allergic skin reaction.  
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.  
H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statements

: **Prevention:**  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
P330 Rinse mouth.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

### Potential Health Effects

Aggravated Medical Condition : None known.  
Symptoms of Overexposure : Skin contact may provoke the following symptoms:  
Sensitisation  
Allergies  
Ingestion may provoke the following symptoms:  
Changes in the blood count  
Nausea  
Inhalation may provoke the following symptoms:  
Asthmatic appearance  
Breathing difficulties

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance  
Substance name : Phenothiazine  
CAS-No. : 92-84-2  
EC-No. : 202-196-5

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## SECTION 4. FIRST AID MEASURES

General advice : Ensure that the First Aid Personnel are aware of the product involved, and take precautions to protect themselves (e.g. wear personal protection equipment).  
Remove affected person from danger area, lay him down.  
Keep warm, calm and covered up.  
If you feel unwell, seek medical advice (show the label where possible).

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If inhaled	: Remove the casualty into fresh air and keep him calm.
In case of skin contact	: In case of contact with skin, clean with soap and water. Take off all contaminated clothing immediately.
In case of eye contact	: In case of contact with the eyes rinse thoroughly with plenty of water or with an eye-cleaning solution.
If swallowed	: When swallowed seek medical aid immediately and show the physician the packaging or the label of the packaging.
Most important symptoms and effects, both acute and delayed	: Skin contact may provoke the following symptoms: Sensitisation Allergies Ingestion may provoke the following symptoms: Changes in the blood count Nausea Inhalation may provoke the following symptoms: Asthmatic appearance Breathing difficulties Health injuries may be delayed. sensitising effects
Notes to physician	: Treat skin and mucous membranes with antihistamine and corticoids. The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

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#### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: alcohol-resistant foam Dry powder Water spray jet
Unsuitable extinguishing media	: High volume water jet High pressure inert gas, e.g. carbon dioxide jet.
Specific hazards during firefighting	: Hazardous decomposition products formed under fire conditions. Carbon oxides Sulphur oxides Nitrogen oxides (NOx)
Hazardous combustion products	: Carbon oxides Sulphur oxides Nitrogen oxides (NOx)
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	: Standard procedure for chemical fires. Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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Special protective equipment for firefighters : Do not inhale explosion and/or combustion gases  
Use self-contained breathing apparatus

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective clothing.  
Avoid contact with skin and eyes.  
Remove persons to safety.  
The danger areas must be delimited and identified using relevant warning and safety signs.

Environmental precautions : Avoid release to the environment.  
Retain and dispose of contaminated wash water.  
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Use mechanical handling equipment.  
Avoid raising dust  
Clean contaminated floors and objects thoroughly, observing environmental regulations  
When picked up, treat material as prescribed under heading "Disposal".  
Containers in which spilt substance has been collected must be adequately labelled

### SECTION 7. HANDLING AND STORAGE

#### Handling

Advice on safe handling : Provide good ventilation of working area (local exhaust ventilation if necessary).  
Avoid the formation and deposition of dust.  
Provide exhaust ventilation if dust is formed.  
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion : In principle, with organic products which are -intentionally or unintentionally- in powdered form, the danger of a dust explosion should be kept in mind.  
Keep away from sources of ignition - refrain from smoking.  
Take precautionary measures against electrostatic charges - earthing necessary during loading operations.  
Normal measures for preventive fire protection.

#### Storage

Requirements for storage areas and containers : Keep container tightly closed in a cool, well-ventilated place.  
Do not allow contact with air.  
Keep away from direct sunlight.

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Advice on common storage : Do not store or transport together with foodstuffs

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Phenothiazine	92-84-2	TWA	5 mg/m3	ACGIH
		TWA	5 mg/m3	NIOSH REL
		TWA	5 mg/m3	OSHA P0

**Engineering measures** : Dust must be extracted directly at the point of origin.  
Exhaust air must be cleaned using approved equipment before returning it to the work place.

#### Personal protective equipment

**Respiratory protection** : No personal respiratory protective equipment normally required.  
If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time.  
Suitable respiratory equipment:  
Respirator with a particle filter (EN 143)  
Half mask with a particle filter P2 (EN 143)

#### Hand protection Remarks

: Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Suitable: Protective gloves complying with EN 374. Nitrile rubber gloves. Butyl rubber gloves. With solid dry substances permeation is not to be expected, therefore the breakthrough-time for this protective glove has not been measured. Gloves must be inspected prior to use. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Gloves must be rinsed thoroughly after use.

#### Eye protection

: Depending on the risk, wear sufficient eye protection (safety glasses with side protection or goggles, and if necessary, face shield.)

#### Skin and body protection

: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place, e.g. apron, boots, protective suit (EN 14605, EN ISO 13982-1, EN 13034).  
Change working clothes after each workshift.

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- |                     |   |
|---------------------|---|
| Protective measures | : Do not inhale dust<br>Avoid contact with eyes and skin  |
| Hygiene measures    | : Avoid contact of the substance.<br>Do not eat, drink or smoke during work time.<br>Remove soiled or soaked clothing immediately and clean thoroughly before using again.<br>Garments that cannot be cleaned must be destroyed (burnt).<br>Keep away from food and drink.<br>Clean hands and face during work intervals and after work<br>Follow the skin protection plan. |

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- |  |  |
|--|--|
| Appearance                             | : Prills   |
| Colour                                 | : yellow-green   |
| Odour                                  | : slight, original odour                                       |
| pH                                     | : ca. 6, Concentration: 10 g/l (20 °C)<br>(aqueous suspension) |
| Melting range                          | : 183 - 185 °C   |
| Boiling point                          | : 235 °C (27 hPa)  |
| Flammability (solid, gas)              | : The product is not inflammable.                              |
| Relative density                       | : 1.296<br>Method: OECD Guide-line 109                         |
| Density                                | : not determined   |
| Bulk density                           | : 730 kg/m <sup>3</sup>  |
| Solubility(ies)                        |  |
| Water solubility                       | : 0.127 mg/l Difficult to dissolve (20 °C)                     |
| Solubility in other solvents           | : 200 g/l (20 °C)<br>Solvent: Acetone                          |
| Partition coefficient: n-octanol/water | : log Pow: 3.78 (30 °C)  |
| Ignition temperature                   | : 470 °C<br>Method: DIN 51794                                  |
| Thermal decomposition                  | : > 350 °C (3 K/min)<br>Method: DSC                            |
| Oxidizing properties                   | : no oxidizing properties                                      |

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Impact sensitivity : Not impact-sensitive

Surface tension : Not applicable

### SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Decomposes on exposure to light.

Possibility of hazardous reactions : When handled and stored appropriately no dangerous reactions are known

Conditions to avoid : Protect from frost, heat and sunlight.

Incompatible materials : Strong acids and strong bases

Hazardous decomposition products : No decomposition if stored and applied as directed.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

##### Product:

Acute oral toxicity : LD50 Rat: 1,370 mg/kg  
Method: FDA method

Acute dermal toxicity : LD50 Rat, male and female: > 2,000 mg/kg  
Method: OECD Test Guideline 402

#### Skin corrosion/irritation

##### Product:

Species: Rabbit  
Exposure time: 4 h  
Result: No skin irritation  
Method: OECD Test Guideline 404

#### Serious eye damage/eye irritation

##### Product:

Species: rabbit eye  
Result: No eye irritation  
Method: OECD Test Guideline 405

#### Respiratory or skin sensitisation

##### Product:

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Species: Guinea pig  
Result: May cause an allergic skin reaction.  
Method: OECD 406 - EEC 96/54, B.6

### Germ cell mutagenicity

#### Product:

Genotoxicity in vitro : Type: Ames test  
Metabolic activation: with and without metabolic activation  
Result: negative

Genotoxicity in vivo : Type: Mutagenicity (in vivo mammalian bone-marrow  
cytogenetic test, chromosomal analysis)  
Test species: Rat (male)  
Cell type: Bone marrow  
Application Route: Oral  
Result: negative

Germ cell mutagenicity-  
Assessment : It is concluded that the product is not mutagenic based on  
evaluation of several mutagenicity tests.

### Carcinogenicity

#### Product:

Carcinogenicity -  
Assessment : Did not show carcinogenic effects in animal experiments.

### Reproductive toxicity

#### Product:

Effects on foetal  
development : Species: Rat  
General Toxicity Maternal: No observed adverse effect level:  
0.5 mg/kg body weight  
Teratogenicity: No observed adverse effect level: > 150 mg/kg  
body weight  
Species: Mouse  
General Toxicity Maternal: No observed adverse effect level:  
ca. 300 mg/kg body weight  
Teratogenicity: No observed adverse effect level: > 150 mg/kg  
body weight

Reproductive toxicity -  
Assessment : Animal testing did not show any effects on foetal  
development.

### STOT - single exposure

No data available

### STOT - repeated exposure

#### Product:

Exposure routes: Ingestion



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Target Organs: Blood

Assessment: May cause damage to organs through prolonged or repeated exposure.

### Repeated dose toxicity

#### Product:

dog:

NOAEL: 6 mg/kg

Application Route: oral feed

Exposure time: 90 d

Target Organs: Blood

Symptoms: Blood disorders

### Aspiration toxicity

No data available

### Further information

#### Product:

Remarks: Photochemical sensitization is possible.

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to fish	: LC50 (zebra fish): 0.597 mg/l
	Exposure time: 96 h
	Method: OECD Test Guideline 203
	NOEC (zebra fish): 0.225 mg/l
	Exposure time: 96 h
	Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna): 0.154 mg/l
	Exposure time: 48 h
	Method: OECD Test Guideline 202
	NOEC (Daphnia magna): 0.062 mg/l
	Exposure time: 48 h
	Method: OECD Test Guideline 202
Toxicity to algae	: NOEC (Desmodesmus subspicatus): 0.66 mg/l
	Exposure time: 72 h
	Test Type: Growth rate
	Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	: 1
M-Factor (Chronic aquatic toxicity)	: 1
Toxicity to bacteria	: IC50 (activated sludge): > 100 mg/l

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Exposure time: 3 h  
Test Method: aquatic  
Method: OECD 209

: IC50 (activated sludge): > 100 mg/l  
Exposure time: 3 h  
Test Method: aquatic  
Method: OECD 209

### Persistence and degradability

#### Product:

Biodegradability : Remarks: Not biodegradable according to OECD 301 (not readily biodegradable)

Chemical Oxygen Demand (COD) : 25 mg/g

Dissolved organic carbon (DOC) : 8 mg/g

### Bioaccumulative potential

#### Product:

Bioaccumulation : Species: Cyprinus carpio (Carp)  
Exposure time: 56 d  
Concentration: 0.02 mg/l  
Bioconcentration factor (BCF): 127 - 660  
Remarks: Bioaccumulation is unlikely.

Bioconcentration factor (BCF): 145  
Method: calculated  
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 3.78 (30 °C)

### Mobility in soil

No data available

### Other adverse effects

#### Product:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Dispose of in accordance with the European Directives on waste and hazardous waste.  
Special waste incineration plant, after consultation with operators  
According to the European Waste Catalogue, Waste Codes

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are not product specific, but application specific.  
Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste  
For disposal local regulation is binding.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulation

##### IATA-DGR

UN/ID No. : UN 3077  
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
(Phenothiazine)  
Class : 9  
Packing group : III  
Labels : Miscellaneous Dangerous Goods  
Packing instruction (cargo aircraft) : 956  
Packing instruction (passenger aircraft) : 956

##### IMDG-Code

UN number : UN 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S.  
(Phenothiazine)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### National Regulations

##### 49 CFR

UN/ID/NA number : UN 3077  
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
(Phenothiazine)  
Class : 9  
Packing group : III  
Labels : CLASS 9  
ERG Code : 171  
Marine pollutant : no

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### SECTION 15. REGULATORY INFORMATION

OSHA Hazards : HARMFUL IF SWALLOWED, MAY CAUSE ALLERGIC SKIN REACTION, Specific target organ toxicity - repeated exposure

SARA 311/312 Hazards : Chronic Health Hazard

#### US State Regulations

##### Massachusetts Right To Know

ACGIH American conference of governmental industrial hygienists threshold limit value (TLV) substances

Phenothiazine 92-84-2

##### Pennsylvania Right To Know

Phenothiazine 92-84-2

##### New Jersey Right To Know

Phenothiazine 92-84-2

The components of this product are reported in the following inventories:

AICS  
DSL  
CH INV  
IECSC  
EINECS  
ENCS  
KECI  
NZIoC  
PICCS  
TSCA

#### Inventories

AICS (Australia), DSL (Canada), IECSC (China), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

### SECTION 16. OTHER INFORMATION

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## Phenothiazine D Prills

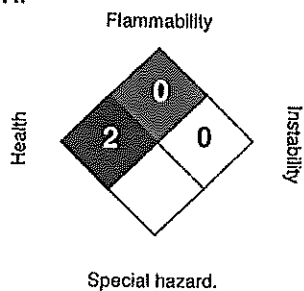
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### Further information

#### NFPA:



#### HMIS III:

HEALTH	2*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

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