



# SAFETY DATA SHEET

FONTEZINC HARDENER

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name : FONTEZINC HARDENER

Product description : Hardener.

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

Recommended use: Painting work

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer or Distributor

Tikkurila Oyj  
P.O. Box 53  
FI-01301 VANTAA  
FINLAND  
Telephone +358 20 191 2000

e-mail address of person responsible for this SDS : Tikkurila Oyj,  
Product Safety,  
e-mail: productsafety@tikkurila.com

### 1.4 Emergency telephone number

Telephone number : 112  
(24h)

#### Supplier or Manufacturer

Telephone number : Tikkurila Oyj  
+358 20 191 2000 (GMT +2) Mon-Fri 8-16

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315  
 Eye Irrit. 2, H319  
 Skin Sens. 1, H317  
 Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

### 2.2 Label elements

Hazard pictograms : 

Signal word :  Warning

<b>Hazard statements</b>	: H319 - Causes serious eye irritation. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H412 - Harmful to aquatic life with long lasting effects.
<b>Precautionary statements</b>	
<b>General</b>	: Not applicable.
<b>Prevention</b>	: P261 - Avoid breathing mist/spray. P280 - Wear protective gloves/clothing and eye/face protection. P284 - In case of inadequate ventilation wear respiratory protection. P273 - Avoid release to the environment.
<b>Response</b>	: P302 + P352 - IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: Not applicable.
<b>Hazardous ingredients</b>	: isophorone diamine m-phenylenebis(methylamine)
<b>Supplemental label elements</b>	: Not applicable.

### 2.3 Other hazards

Other hazards which do not result in classification : None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Notes
aliphatic polyamine adduct	-	≥10 - <25	Aquatic Chronic 2, H411	-
isophorone diamine	REACH #: 01-2119514687-32 EC: 220-666-8 CAS: 2855-13-2 Index: 612-067-00-9	<1.5	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317	-
m-phenylenebis(methylamine)	REACH #: 01-2119480150-50 EC: 216-032-5 CAS: 1477-55-0	<1.5	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412  <b>See Section 16 for the full text of the H statements declared above.</b>	-

Notes, if applicable, refer to Notes given in Annex VI of 1272/2008/EC.

### Specific concentration limits and ATE-values

Ingredient name, Specific concentration limits, ATE value
isophorone diamine Skin Sens. 1A, H317: C ≥ 0,001 % Oral: ATE = 1030 mg/kg bw

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Show this safety data sheet or label to the doctor if possible.
- Eye contact** :  Check for and remove any contact lenses. Immediately flush eyes with plenty of lukewarm water, keeping eyelids open. Continue to rinse for at least 15 minutes. Get medical attention if symptoms occur.
- Inhalation** : Remove to fresh air. Keep person warm and at rest.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. Get medical attention if symptoms occur.
- Ingestion** : If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Remove to fresh air and keep at rest in a position comfortable for breathing. Do NOT induce vomiting.

### 4.2 Most important symptoms and effects, both acute and delayed

- Causes skin irritation.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.  
 See Section 11 for more detailed information on health effects and symptoms.

### 4.3 Indication of any immediate medical attention and special treatment needed

None.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. Recommended: Alcohol resistant foam, CO<sub>2</sub>, powders or water spray/mist.
- Unsuitable extinguishing media** : Do not use a direct water jet that could spread the fire.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : This product is not classified as flammable. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- Hazardous combustion products** : When exposed to high temperatures, hazardous decomposition products may be produced, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Use water spray to keep fire-exposed containers cool. This material is hazardous to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures** : Provide adequate ventilation. Avoid breathing vapor or mist. Avoid contact with skin and eyes. See Section 8 for information on appropriate personal protective equipment.

- 6.2 Environmental precautions** : Hazardous to aquatic environment. Do not allow to enter drains, water courses or soil.

- 6.3 Methods and materials for containment and cleaning up** : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Preferably clean with water or detergent. Avoid using solvents.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

- 7.1 Precautions for safe handling** : Skin contact with the product and exposure to spray mist and vapor should be avoided. Avoid contact with skin and eyes. Avoid inhalation of dust from sanding. See Section 8 for information on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled and stored. Wash hands before breaks and immediately after handling the product. Avoid release to the environment.
- 7.2 Conditions for safe storage, including any incompatibilities** : Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep container tightly closed. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Recommended storage temperature is +5°C ...+25°C. Do not allow to freeze. Store in accordance with local regulations.
- 7.3 Specific end use(s)** : None.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

#### DNELs/DMELs

No DNELs/DMELs available.

#### PNECs

No PNECs available.

### 8.2 Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn (see Personal protection for both components). Comply with the health and safety at work laws.

#### Individual protection measures

**Eye/face protection** : Use safety eyewear (EN166), especially during spray-application.

**Hand protection** : Always wear approved protective gloves against chemicals. Gloves should be replaced regularly and if there is any sign of damage to the glove material. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Recommended glove material (EN374):

< 1 hour (breakthrough time): nitrile rubber, butyl rubber

> 8 hours (breakthrough time): laminated foil

Not recommended: PVC or natural rubber (latex) gloves

**Skin protection** : Wear suitable protective clothing.

<b>Respiratory protection</b>	: If ventilation during spray-application is inadequate, use respirators with combination filter AP, gas/dust filter (EN405:2001). Wear a half mask or full face respirator with gas and vapor filter A and dust filter P2 during sanding (EN140:1998, EN405:2001). During continuous and long-term work the use of motor-driven or air-fed respirators is recommended (EN12941:1998). Be sure to use an approved/certified respirator or equivalent. Check that mask fits tightly and change filter regularly.
<b>Environmental exposure controls</b>	: For information regarding environmental protection measures, please refer to section 13 for waste handling, section 7 for handling and storage and section 1.2 for relevant identified uses of the substance or mixture and uses advised against.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Clear.
<b>Odor</b>	: Strong.
<b>Odor threshold</b>	: Not relevant for the hazard assessment of the product.
<b>pH</b>	: Not relevant for the hazard assessment of the product.
<b>Melting point/freezing point</b>	: Not available.
<b>Initial boiling point and boiling range</b>	: Not available.
<b>Flash point</b>	: >100 °C
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not applicable. Product is a liquid.
<b>Upper/lower flammability or explosive limits</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: Not available.
<b>Density</b>	: 1.02 g/cm <sup>3</sup>
<b>Solubility(ies)</b>	: Miscible in water.
<b>Partition coefficient: n-octanol/ water</b>	: Not applicable.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not relevant for the hazard assessment of the product.
<b>Viscosity</b>	: Not relevant for the hazard assessment of the product.
<b>Explosive properties</b>	: No explosive ingredients present.
<b>Oxidizing properties</b>	: No oxidizing ingredients present.

#### Particle characteristics

<b>Median particle size</b>	: Not applicable.
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### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: See Section 10.5.
<b>10.2 Chemical stability</b>	: Stable under recommended storage and handling conditions (see Section 7).
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Avoid extreme heat and freezing.

**10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions:  
oxidizing agents  
strong acids  
strong alkalis

**10.6 Hazardous decomposition products** : When exposed to high temperatures, hazardous decomposition products may be produced, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

There is no testdata available on the product itself.

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Long term exposure to spray mist may produce respiratory tract irritation. Repeated or prolonged skin contact may lead to allergic contact dermatitis.

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isophorone diamine	LD50 Oral	Rat	1030 mg/kg	-
m-phenylenebis (methylamine)	LC50 Inhalation Dusts and mists	Rat	1.34 mg/l	4 hours
	LC50 Inhalation Vapor	Rat	2.4 mg/l	4 hours
	LD50 Oral	Rat	930 mg/kg	-

Not classified.

#### Irritation/Corrosion

Causes skin irritation. Causes serious eye irritation.

#### Sensitization

May cause an allergic skin reaction.

The product contains sensitizing substances mentioned in sections 2 and 3.

#### Mutagenicity

Not classified.

#### Carcinogenicity

Not classified.

#### Reproductive toxicity

Not classified.

#### Teratogenicity

Not classified.

#### Specific target organ toxicity (single exposure)

Not classified.

#### Specific target organ toxicity (repeated exposure)

Not classified.

#### Aspiration hazard

Not classified.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

Not applicable.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

Ecological testing has not been conducted on this product.

The product is classified as environmentally hazardous according to Regulation (EC) 1272/2008.

Harmful to aquatic life with long lasting effects.

Do not allow to enter drains, water courses or soil.

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
m-phenylenebis (methylamine)	Acute EC50 12 mg/l	Algae - Scenedesmus subspicatus	72 hours
	Acute EC50 15.2 mg/l	Daphnia	48 hours
	Acute LC50 75 mg/l	Fish	96 hours
	Acute LC50 87.6 mg/l	Fish	96 hours
	Chronic NOEC 4.7 mg/l	Daphnia	21 days

### 12.2 Persistence and degradability

: No specific data.

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	Bioconcentration factor [BCF]	Potential
m-phenylenebis (methylamine)	0.18	2.69	low
isophorone diamine	0.99	-	low

### 12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Mobility : Not available.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

### 12.6 Endocrine disrupting properties

: Not applicable.

### 12.7 Other adverse effects

: Not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product

**Methods of disposal** : Gather residues into waste containers. Liquid residue and cleaning liquids are hazardous waste and must not be emptied into drains or sewage system, but handled in accordance with national regulations. Product residues should be left at special companies which have permission for gathering this kind of wastes.

**European waste catalogue (EWC)**

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

#### Packaging

**Methods of disposal** : Empty packaging should be recycled or disposed of in accordance with national regulations.

**Special precautions** : No additional information.

## SECTION 14: Transport information

This product is not regulated for carriage according to ADR/RID, IMDG, IATA.

	ADR/RID	IMDG	IATA
<b>14.1 UN number or ID number</b>	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Maritime transport in bulk according to IMO instruments** : Not available.

## SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Other EU regulations

**Europe inventory** : Not determined.

#### Persistent Organic Pollutants

Not listed.

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

	<b>Classification</b>	<b>Justification</b>
✔ Skin Irrit. 2, H315		Calculation method
Eye Irrit. 2, H319		Calculation method
Skin Sens. 1, H317		Calculation method
Aquatic Chronic 3, H412		Calculation method
<b>Full text of abbreviated H statements</b>	✔ H302 Harmful if swallowed. H332 Harmful if inhaled. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.	
<b>Full text of classifications [CLP/GHS]</b>	✔ Acute Tox. 4 Aquatic Chronic 2 Aquatic Chronic 3 Eye Dam. 1 Eye Irrit. 2 Skin Corr. 1B Skin Irrit. 2 Skin Sens. 1 Skin Sens. 1A	ACUTE TOXICITY - Category 4 AQUATIC HAZARD (LONG-TERM) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1A
<b>Date of issue/ Date of revision</b>	: 9/8/2022	
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<b>Version</b>	: 4	

### Notice to reader

This Safety Data Sheet is prepared in accordance with Annex II (EU) No 878/2020 to Regulation (EC) No 1907/2006 (REACH). The information contained in this Safety Data Sheet is based on the present state of knowledge and current EU and national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.