



# SAFETY DATA SHEET

HARDENER 006 2098

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

### 1.1 Product identifier

Product name : HARDENER 006 2098

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]

Flam. Liq. 2, H225

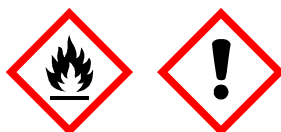
Skin Irrit. 2, H315

Eye Irrit. 2, H319

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

### 2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements :  H225 - Highly flammable liquid and vapor.  
H319 - Causes serious eye irritation.  
H315 - Causes skin irritation.

**Precautionary statements**

<b>General</b>	: Not applicable.
<b>Prevention</b>	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 - Avoid breathing mist/vapors/spray. P280 - Wear protective gloves. P284 - In case of inadequate ventilation wear respiratory protection.
<b>Response</b>	: 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>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
ethanol	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≥50 - ≤75	Flam. Liq. 2, H225 Eye Irrit. 2, H319	-
p-toluenesulphonic acid	REACH #: 01-2119538811-39 EC: 203-180-0 CAS: 104-15-4 Index: 016-030-00-2	≥10 - <20	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	-
ethyl methyl ketone	REACH #: 01-2119457290-43 EC: 201-159-0 CAS: 78-93-3 Index: 606-002-00-3	≤3	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-
isopropanol	REACH #: 01-2119457558-25 EC: 200-661-7 CAS: 67-63-0	≤3	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	-
phosphoric acid	REACH #: 01-2119485924-24 EC: 231-633-2 CAS: 7664-38-2 Index: 015-011-00-6	≤3	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318  <b>See Section 16 for the full text of the H statements declared above.</b>	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
<p>phosphoric acid Skin Corr. 1B, H314: C ≥ 25 % Skin Irrit. 2, H315: 10 % ≤ C &lt; 25 % Eye Irrit. 2, H319: 10 % ≤ C &lt; 25 %</p> <p>p-toluene sulphonic acid STOT SE 3, H335: C ≥ 20 %</p>

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. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention.
- 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.
- 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.

Inhalation of vapours may cause dizziness, headache and nausea.

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** : Highly flammable liquid and vapor. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion 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** : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Do not release runoff from fire to drains or watercourses.
- 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** : Shut off all ignition sources. No flares, smoking or flames in hazard area. 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** : 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 a 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** : Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. Isolate from sources of heat, sparks and open flame. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. No sparking tools should be used.  
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. Wear appropriate respirator when ventilation is inadequate. 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.
- 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). Store and use away from heat, sparks, open flame or any other ignition source. No smoking. 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. 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

Product/ingredient name	Exposure limit values
ethyl methyl ketone	<b>EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values</b> TWA: 200 ppm 8 hours. TWA: 600 mg/m <sup>3</sup> 8 hours. STEL: 300 ppm 15 minutes. STEL: 900 mg/m <sup>3</sup> 15 minutes.
phosphoric acid	<b>EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values</b> TWA: 1 mg/m <sup>3</sup> 8 hours. STEL: 2 mg/m <sup>3</sup> 15 minutes.

**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. Use explosion-proof ventilation equipment. 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 designed to protect against splash of liquids (EN166).
- Hand protection** : Wear protective gloves. 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  
4 - 8 hours (breakthrough time): butyl rubber  
> 8 hours (breakthrough time): laminated foil  
Not recommended: PVA gloves
- Skin protection** : Wear suitable protective clothing. This product is classified as flammable. If necessary, personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.
- Respiratory protection** : If ventilation is inadequate, use respirator that will protect against organic vapor and dust/mist. During spray-application use respirators with combination filter A/P3 (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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Color** : Clear.
- Odor** : Strong.
- Odor threshold** : Not relevant for the hazard assessment of the product.
- pH** : Not relevant for the hazard assessment of the product.
- Melting point/freezing point** : -114°C (ethanol)
- Initial boiling point and boiling range** : 78.29°C (ethanol)
- Flash point** : 13 °C (ethanol)
- Evaporation rate** : 1.7 (butyl acetate = 1) (ethanol)
- Flammability (solid, gas)** : Not applicable. Product is a liquid.
- Upper/lower flammability or explosive limits** : Lower: 3.3% (ethanol)  
Upper: 19% (ethanol)
- Vapor pressure** : 5.7 kPa [room temperature] (ethanol)
- Vapor density** : 1.6 (ethanol)
- Density** : 0.86 g/cm<sup>3</sup>

Solubility(ies)	: insoluble in water.
Partition coefficient: n-octanol/ water	: <input checked="" type="checkbox"/> Not applicable.
Auto-ignition temperature	: 455°C (ethanol)
Decomposition temperature	: Not relevant for the hazard assessment of the product.
Viscosity	: Not relevant for the hazard assessment of the product.
Explosive properties	: No explosive ingredients present.
Oxidizing properties	: No oxidizing ingredients present.

#### Particle characteristics

Median particle size :  Not applicable.

#### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

- 10.1 Reactivity** : See Section 10.5.
- 10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- 10.3 Possibility of hazardous reactions** : May present an explosion hazard when material is suspended in air in confined areas or equipment and subjected to spark, heat or flame.
- 10.4 Conditions to avoid** : Avoid extreme heat and freezing. Avoid all possible sources of ignition (spark or flame).
- 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.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting.

#### Acute toxicity

Not classified.

#### Irritation/Corrosion

Causes skin irritation. Causes serious eye irritation.

#### Sensitization

Not classified.

#### 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 not classified as environmentally hazardous according to Regulation (EC) 1272/2008.

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

### 12.1 Toxicity : No specific data.

Not available.

### 12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethyl methyl ketone	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	Bioconcentration factor [BCF]	Potential
isopropanol	0.05	-	low
ethyl methyl ketone	0.3	-	low
ethanol	-0.35	-	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** : None.

## SECTION 14: Transport information

	ADR/RID	IMDG	IATA
<b>14.1 UN number or ID number</b>	UN1263	UN1263	UN1263
<b>14.2 UN proper shipping name</b>	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
<b>14.3 Transport hazard class(es)</b>	3	3	3
<b>14.4 Packing group</b>	II	II	II
<b>14.5 Environmental hazards</b>	No.	No.	No.

#### Additional information

**ADR/RID** : **Special provisions** 640 (C)  
**Tunnel code** (D/E)

**IMDG** : **Emergency schedules** F-E,S-E

**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 : All components are listed or exempted.

Industrial emissions : Listed

(integrated pollution prevention and control) - Air

Persistent Organic Pollutants

Not listed.

Drug precursors : This product contains following substance(s) that are listed in Annex I / Category 3 of the EU Regulation (EC) No 273/2004 on drug precursors:  
ethyl methyl ketone

**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]

### Classification

### Justification

✔ Flam. Liq. 2, H225 On basis of test data  
Skin Irrit. 2, H315 Calculation method  
Eye Irrit. 2, H319 Calculation method

**Full text of abbreviated H statements** : ✔ H225 Highly flammable liquid and vapor.  
H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H315 Causes skin irritation.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
EUH066 Repeated exposure may cause skin dryness or cracking.

**Full text of classifications [CLP/GHS]** : ✔ Acute Tox. 4 ACUTE TOXICITY - Category 4  
Eye Dam. 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
Eye Irrit. 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
Flam. Liq. 2 FLAMMABLE LIQUIDS - Category 2  
Met. Corr. 1 CORROSIVE TO METALS - Category 1  
Skin Corr. 1B SKIN CORROSION/IRRITATION - Category 1B  
Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2  
STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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Version : 15

#### **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.