

Safety Data Sheet

GHS VERSION

Article No.: 21653
Print date 01.02.2016
Version 1.2

HARDENER K
Revision date 01.02.2016
Issue date 18.12.2015

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifiers

Article No. (manufacturer/supplier): 21653
Identification of the substance or mixture HARDENER K

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

Relevant identified uses

Curing agent, acidic. Reserved for industrial and professional use.

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

KIWO Inc.
1929 Marvin Circle Telephone: +1 281-474-9777
Seabrook, TX 77586 Telefax: +1 281-474-7325
USA

1.4. Emergency telephone number

Emergency telephone: 1-800-255-3924 / +1 813-248-0573 (ChemTel)

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to GHS

This mixture is classified as hazardous according to GHS

Skin Sens. 1 / H317	respiratory or skin sensitisation	May cause an allergic skin reaction.
Muta. 2 / H341	Germ cell mutagenicity	Suspected of causing genetic defects.

2.2. Label elements

The product is classified and labelled according to GHS.

Labelling according to GHS

Hazard pictograms



Warning

Hazard statements

H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.

Precautionary statements

P280 Wear protective gloves and eye/face protection.

contains:

glyoxal

2.3. Other hazards

3. Composition / Information on ingredients

3.2. Mixtures

Product description / chemical characterization

Description Mixture of components, as listed below, with nonhazardous constituents

Hazardous ingredients

Classification according to GHS

EC No.	REACH No.	Wt %
CAS No.	Chemical name	Remark
INDEX No.	classification:	
203-474-9		
107-22-2	glyoxal	1 - 5
605-016-00-7	Muta. 2 H341 / Acute Tox. 4 H332 / Eye Irrit. 2 H319 / Skin Irrit. 2 H315 / Skin Sens. 1 H317	

Safety Data Sheet

GHS VERSION

Article No.: 21653
Print date 01.02.2016
Version 1.2

HARDENER K
Revision date 01.02.2016
Issue date 18.12.2015

231-595-7
017-002-01-X hydrochloric acid
Skin Corr. 1B H314 / STOT SE 3 H335

1 - 5

Additional information

Full text of classification: see section 16

4. First-aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

After contact with skin, wash immediately with plenty of water and soap. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure. Remove contaminated, saturated clothing immediately.

After eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Remove contact lenses.

After ingestion

Seek medical advice immediately. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide Water mist Foam

Extinguishing media which must not be used for safety reasons:

strong water jet

5.2. Special hazards arising from the substance or mixture

Gases/vapours, toxic Heating causes rise in pressure with risk of bursting.

5.3. Special protective equipment for firefighters:

Provide a conveniently located respiratory protective device.

Additional information

The danger areas must be delimited and identified using relevant warning and safety signs. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove persons to safety. Do not breathe vapours. See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations. Provide good ventilation.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13).

6.4. Reference to other sections

Observe protective provisions (see chapter 7 and 8).

7. Handling and storage

7.1. Precautions for safe handling

Safety Data Sheet

GHS VERSION

Article No.: 21653
Print date 01.02.2016
Version 1.2

HARDENER K
Revision date 01.02.2016
Issue date 18.12.2015

Advices on safe handling

Avoid contact with skin and eyes. Do not inhale vapours or mist. Avoid: aerosol or mist formation Do not mix with other chemicals.

Do not eat, drink or smoke when using this product.

Personal protection equipment: refer to chapter 8.

Follow the legal protection and safety regulations.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels

Always keep in containers that correspond to the material of the original container.

Hints on joint storage

Do not store together with: Alkali (lye)

Additional information

VCI-storage class, see Chapter 15

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

8. Exposure controls / Personal protection

8.1. Control parameters

Occupational exposure limit values:

n.a.

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. Do not breathe vapour/aerosol.

Personal protection equipment

Respiratory protection

When splashes or fine mist form, a permitted breathing apparatus suitable for these purposes must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Hand protection

Wear chemical resistant protective gloves.

Eye protection

Wear closed protection glasses.

Protective clothing

Protective clothing Acid-resistant

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical state

liquid

Colour

refer to label

Odour

characteristic

Safety relevant basis data

Flash point:

n.a.

Ignition temperature (AIT)

NB

Lower explosion limit

n.a.

Upper explosion limit

n.a.

Vapour pressure at 20 °C:

22.51 mbar

Density at 20 °C:

1.03 g/cm³

Water solubility (g/L)

very soluble

Method

Remark

Safety Data Sheet

GHS VERSION

Article No.: 21653
Print date 01.02.2016
Version 1.2

HARDENER K
Revision date 01.02.2016
Issue date 18.12.2015



Page 4 / 6

pH at 20 °C: 1.00
Viscosity at °C: na
Initial boiling point and boiling range 100 °C (101,3 kPa)
Decomposition temperature (°C): 0

9.2. Other information:

10. Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. Conditions to avoid

10.5. Incompatible materials

10.6. Hazardous decomposition products

11. Toxicological information

Classification for mixtures and used evaluation method according to GHS

No data on preparation itself available.

11.1. Information on toxicological effects

Acute toxicity

Toxicological data are not available.

skin corrosion/irritation; Serious eye damage/eye irritation

Toxicological data are not available.

Respiratory or skin sensitisation

Toxicological data are not available.

Specific target organ toxicity

Toxicological data are not available.

Aspiration hazard

Toxicological data are not available.

Practical experience/human evidence

Other observations:

Causes severe skin burns and eye damage.

Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Remark

There is no information available on the preparation itself .

12. Ecological information

overall evaluation

Classification for mixtures and used evaluation method according to GHS

Do not store at public landfills.

The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

12.1. Toxicity

No information available.

Long-term Ecotoxicity

Toxicological data are not available.

12.2. Persistence and degradability

Toxicological data are not available.

Safety Data Sheet

GHS VERSION

Article No.: 21653
Print date 01.02.2016
Version 1.2

HARDENER K
Revision date 01.02.2016
Issue date 18.12.2015



Page 5 / 6

12.3. Bioaccumulative potential

Toxicological data are not available.

Bioconcentration factor (BCF)

Toxicological data are not available.

12.4. Mobility in soil

Toxicological data are not available.

12.5. Results of PBT assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

13. Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product Recommendation

packaging

Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

14. Transport information

14.1. UN number

3264

14.2. UN proper shipping name

Land transport (ADR / RID / DOT):

Corrosive liquid, acidic, inorganic, n.o.s.
(Hydrochloric Acid)

Sea transport (IMDG):

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(Hydrochloric Acid)

Air transport (ICAO-TI / IATA-DGR):

Corrosive liquid, acidic, inorganic, n.o.s.
(Hydrochloric Acid)

14.3. Transport hazard class(es)

8

14.4. Packing group

II

14.5. Environmental hazards

Land transport (ADR/RID)

n.a.

Marine pollutant

n.a.

14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

Additional information

Land transport (ADR/RID)

tunnel restriction code

-

Sea transport (IMDG)

EmS-No.

F-A, S-B

Segregation group

IMDG Code segregation group 1 - acids

Packaging >30 l

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

15. Regulatory information

Safety Data Sheet

GHS VERSION

Article No.: 21653
Print date 01.02.2016
Version 1.2

HARDENER K
Revision date 01.02.2016
Issue date 18.12.2015



Page 6 / 6

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

EU legislation

Observe in addition any national regulations!

calculated with mixing rule

Substance/product listed in the following inventories:

Listed in TOXIC SUBSTANCES CONTROL ACT (TSCA)

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this preparation were not carried out.

16. Other information

Full text of classification in section 3:

Muta. 2 / H341

Germ cell mutagenicity

Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

Acute Tox. 4 / H332

Acute toxicity (inhalative)

Harmful if inhaled.

Eye Irrit. 2 / H319

Serious eye damage/eye irritation

Causes serious eye irritation.

Skin Irrit. 2 / H315

skin corrosion/irritation

Causes skin irritation.

Skin Sens. 1 / H317

respiratory or skin sensitisation

May cause an allergic skin reaction.

Skin Corr. 1B / H314

skin corrosion/irritation

Causes severe skin burns and eye damage.

STOT SE 3 / H335

Specific target organ toxicity (single exposure)

May cause respiratory irritation.

Additional information

Classification for mixtures and used evaluation method according to GHS

The information supplied on this safety data sheet is correct to the best of our knowledge. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.