

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006

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

1.1. Product identifier

Trade name: InnoMetal MEKP 5, MEKP 9, MEKP 9-H, Norox MEKP 5, Norox MEKP 9, Norox MEKP 9-H

Other names: -

MSDS name: EN_InnoMetal_MSDS_MEKP, Norox MEKP

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

1.2.1. Application of the substance / the mixture

Additional component

1.2.2. Applications advised against

No further relevant information available.

1.3. Details of the supplier of the safety data sheet

InnoMetal GmbH

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1.4. Emergency telephone number

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Organic peroxides, Type D; H242

Acute toxicity, Category 4, oral; H302

Skin corrosion, Category 1B; H314

Serious eye damage, Category 1; H318

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



O, Oxidizing



C, Corrosive

R7: May cause fire

R22: Harmful if swallowed

R34: Causes burns

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS02

GHS05

GHS07

Signal word: Danger

Hazard statements:

H242: Heating may cause a fire.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage

2.3. Other hazards

Inhalation of dust or fumes leads to irritation of respiratory system. Inhalation of higher concentrations may cause metal fume fever.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Dangerous components:

CAS-Nr.	EINECS	Chemical name	from %	till %	Hazard pictograms	R phrases	Index Number
1338-23-4	215-661-2	Methyl ethyl ketone peroxide	30	40	O, C	7, 33, 34	-
131-11-3	205-011-6	Dimethyl phtalate	30	40	-	-	-
6846-50-0	229-934-9	Proprietary phlegmatiser	15	25	-	-	-
7722-84-1	231-765-0	Hydrogen peroxide solution	1	2	O, C	5, 8, 20/22, 35	008-003-00-9
78-93-3	201-159-0	Ethyl methyl ketone (2-Butanone)	0,5	1,5	F, Xi	11,36, 66, 67	606-002-00-3
-	-	Water	1	1,5	-	-	-

Labelling (CLP):

CAS-Nr.	EINECS	Chemical name	Hazard pictograms	Signal word	Hazard statements
1338-23-4	215-661-2	Methyl ethyl ketone peroxide	GHS02, GHS05, GHS07	Gefahr	H242, 302, 314
131-11-3	205-011-6	Dimethyl phthalate	-	-	-
6846-50-0	229-934-9	Proprietary phlegmatiser	-	-	-
7722-84-1	231-765-0	Hydrogen peroxide solution	GHS03, GHS05, GHS07	Gefahr	H271, 302, 314, 332, 335, 412
78-93-3	201-159-0	Ethyl methyl ketone (2-Butanone)	GHS02, GHS07	Gefahr	H225, 319, 336, EUH066
-	-	Water	-	-	-

Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

After inhalation: Remove to fresh air, keep patient warm and at rest, if breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.

After skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water.

If skin irritation continues, consult a doctor.

After eye contact: Irrigate copiously with clean, fresh water for at least 15 minutes, alternate 2% NaCO₃, holding the eyelids apart and seek medical advice if necessary.

After swallowing: If accidentally swallowed obtain immediate medical attention. Keep at rest. Drink water or milk, and D NOT induce vomiting.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol resistant foam, CO₂, powders, water spray. Not to be used: water-jet.

5.2. Special hazards arising from the substance or mixture

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

5.3. Advice for firefighters

Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not allow run-off from firefighting to enter drains or watercourses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid sources of ignition and ventilate the area. Avoid breathing vapours. Absorb the leak with an inert, non-combustible absorbent material, e.g. sand, earth, perlite or vermiculite. Transfer the material into a clean approved container for proper disposal. Avoid skin and eye contact. Wear personal protection equipment recommended in section 8.

6.2. Environmental precautions

Do not allow to enter sewers/ surface or ground water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Wet the material with water. Wash the contaminated zone. Dike to prevent runoff from entering drains, sewers, streams etc. Dispose contaminated material as waste according to item 13.

6.4. Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Provide adequate ventilation. Keep containers tightly closed when not in use. Do not use near food or drink. Avoid skin and eye contact. Avoid breathing vapours. Wear personal protection equipment recommended in section 8. Isolate from sources of heat, sparks and open flame. No sparking tools should be used. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another.

7.2. Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original package, in cool, well-ventilated place away from sources of heat, fires, sparks and direct sunlight. Avoid higher storage temperature than 25°C. The product must never be stored together with accelerators such as dryers, heavy metal compounds etc. Avoid contact with rust. Keep away from sources of ignition. Keep away from oxidising agents, from strongly alkaline and strongly acid materials. Rotate stock using the oldest material first. Prevent unauthorised access.

7.3. Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:	
1338-23-4 Methylketonperoxid	
Swedish Exp.limits/Type	0,2 ppm /C
ACGIH/Type	0,2ppm/C
131-1 1-3 Dimethylphthalat	
Swedish Exp.limits/Type	3,0 mg/m3 /TWA
ACGIH/Type	5 mg/m3/TWA

7722-84-1 Wasserstoffperoxid	
Swedish Exp.limits/Type	1 ppm /TWA
ACGIH/Type	1 ppm/TWA
78-93-3 Butanon (Methylethylketon)	
Swedish Exp.limits/Type	50 ppm /TWA
ACGIH/Type	200ppm/TLV

Additional information: The lists valid during the making were used as basis.

8.2. Exposure controls

Respiratory protection: Is required if the limit like TLV are exceeded. Gas mask with filter A (brown, organic substances) may be necessary.

Hand protection:



Protective gloves

Use resistant gloves of: butyl rubber, ethylene-vinyl alcohol, teflon.

Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Eye protection: Use safety eyewear designed to protect against splash of liquids. Splashes in the eyes may cause serious eye damage.

Skin protection: Personnel should wear antistatic clothing made of natural fibre or of high temperature resistant synthetic fibre. All parts of the body should be washed after contact.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information

Appearance:

Physical state: Liquid

Flash point (°C): >75 Method: Seta Flash

Viscosity at 20 °C (mPas): 19–22

pH: 3.8–7.0

Active oxygen (%): Max. 9.0

Density at 20°C (g/cm³): 1.10 - 1.15

Colour: clear, colourless

Solubility in water: Immiscible

9.2. Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No further relevant information available.

10.2. Chemical stability

Stable when kept in original, closed container, out of direct sunlight at temperatures below 25°C.
Decomposition of product due to heat or contamination may lead to fire or strong explosions. SADT 60 °C.

10.3. Possibility of hazardous reactions

Self-decomposition is catalysed by substances such as acids, strong bases, tert-amines, Friedel-Crafts catalysts and heavy metals.

10.4. Conditions to avoid

No further relevant information available.

10.5. Incompatible materials

e.g. mineral acids, caustic alkali solutions, reducing agents, oxidation catalysts, Friedel-Crafts catalysts.

10.6. Hazardous decomposition products

Carbon dioxide, Water, Acetic acid, Formic acid, propanoic acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

There are no data available on the preparation itself. Irritation data (Methyl ethyl ketone peroxide <45%):

Skin (rabbit) 500mg AIHAAP 19, 205, 1958

Eye (rabbit) 3mg AIHAAP 19, 205, 1958

Toxicity data (Methyl ethyl ketone peroxide <45%):

Oral (rat) LD-50 484mg/kg AIHAAP 19, 205, 1958

Oral (mouse) LD-50 470mg/kg JAMAAP 165, 201, 1957

Inhalation (rat) LC-50 200ppm/4h AIHAAP 19, 205, 1958

Inhalation (mouse) LC-50 170ppm/4h AIHAAP 19, 205, 1958

Toxicity effects: This product is extremely irritant for the eyes, just a few drops of it might cause irreversible lesion and permanent injury of the cornea. If there is a skin contact, it might cause irritation, skin-rash, swelling and chapping. The inhalation of its vapours causes cough, headache and irritation of the respiratory-system. Swallowing causes strong irritation and burn of throat and stomach. Perforations of the mucous membranes might occur and, according to its quantity, it might also cause the death of the injured person. The organic peroxides are dangerous for the organism since the peroxide oxygen is reduced to radical that induces into the cellular metabolism.

Skin contact: Strongly irritant. Causes burns

Eyes contact: Strongly irritant, corrosive.

Ingestion: Harmful

Carcinogenic-Mutagenic-Reproductive effects: No evidence of these effects has been reported.

SECTION 12: Ecological information

12.1. Toxicity

Methyl ethyl ketone peroxide 33%

Ecotoxicity

Fish acute toxicity, LC50 (96h) 44,2 mg/l (Poecilia reticulata)

Bacteria EC50 48 mg/l

Readily biodegradable (closed bottle test)

Dimethylphthalate

Ecotoxicity

Algae Selenastrum capricornutum, IC50 (96h) 39,8 mg/l

Methyl ethyl ketone
Ecotoxicity
Fish acute toxicity, LC50 (96h) 3,22 mg/l (Lepomis macrochirus)
Bacteria EC50 48 mg/l
Readily biodegradable (closed bottle test)

12.2. Persistence and degradability

This product is readily biodegradable and it's not toxic to aquatic organisms.

12.3. Bio-accumulative potential

No further relevant information available.

12.4. Mobility in soil

No further relevant information available.

Do not allow product to reach ground water, water course or sewage system.

12.5. Results of PBT and vPvB assessment

Not applicable.

12.6. Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendation:

Do not allow into drains or water courses. Water and emptied containers should be handled according to local regulations. The producer recommends destruction of both peroxide rests and empty packaging by combustion under controlled forms

European waste catalogue:

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste Codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1. UN number

ADR, IMDG, IATA: 3105 Organisches Peroxid, Typ D, flüssig

14.2. UN proper shipping name

ADR: 3105 Organisches Peroxid, Typ D, flüssig

3105 Organic peroxide type D, liquid

IMDG, IATA: 3105 Organic peroxide type D, liquid

14.3. Transport hazard class(es)

ADR:



Klasse: 5.2 Entzündend (oxidierend) wirkende Stoffe
Gefahrzettel: 5.2

IMDG, IATA:



Class: 5.2 Organic Peroxide Oxidizing Agent

14.4. Packing group

ADR, IMDG, IATA: II

14.5. Environmental hazards

Marine pollutant: No.

14.6. Special precautions for user

Warning: -

Danger code (Kemler): -

EMS number: F-J, S-R

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Transport category 1

Tunnel restriction code D/E

UN "Model Regulation": UN3105 Organic peroxide type D, liquid, 5.2, II

SECTION 15: Regulatory information

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

National regulations:

Water hazard class: -

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

16.1. Wording of R und H phrases

Relevant phrases

(serves as the explanation for only the hazard and risk phrases noted in the MSDS, e.g. in chapter 3)

R 5	Heating may cause an explosion
R 7	May cause fire
R 8	Contact with combustible material may cause fire
R 11	Highly flammable
R 20/22	Harmful by inhalation and if swallowed
R 22	Harmful if swallowed
R 34	Causes burns
R 35	Causes severe burns
R 36	Irritating to eyes
R 66	Repeated exposure may cause skin dryness or cracking
R 67	Vapours may cause drowsiness and dizziness

H225: Highly flammable liquid and vapour.

H242: Heating may cause a fire.

H271: May cause fire or explosion; strong oxidizer.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

H412: Harmful to aquatic life with long lasting effects.

16.2. Further information

The information provided in this material safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warrant or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship.