

MATERIALS SAFETY DATA SHEET

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1. Identification of the Substance/preparation and of the Company/undertaking

Product Name : KILROCK-K
Chemical Name : FORMIC ACID 54% w/w + Inhibitors
Synonyms : FORMIC ACID 54%
METHANOIC ACID
EMERGENCY ONLY : R. Davis Telephone No. : 07836-526420
Formula : HC00H Molecular Mass : 46.03

2. Composition/information on ingredients

Substance/Preparation : Substance

Chemical name*	CAS No.	%	EC Number	Symbol	R-Phrases
1. FORMIC ACID 54% w/w + Inhibitors	64-18-6	54	200-579-1	C	R34

* Occupational Exposure Limit(s), if available are listed in Section 8

Composition : AQUEOUS SOLUTION OF FORMIC ACID AT SPECIFIED
MASS CONCENTRATION
CAS No. : 64-18-6
EINECS Number : 200-579-1

3. Hazards identification

Human health hazards : Causes burns.

4. First-aid measures

First-Aid measures

Inhalation : Remove from exposure. If breathing stops or shows signs of failing apply artificial respiration. Obtain medical attention urgently. Keep warm and at rest. If there is difficulty in breathing give oxygen. Do not use mouth to mouth ventilation.

Ingestion : Wash out mouth with water. Give sips of cold water or milk to soothe the affected parts. Ingested acid must be diluted by approximately x 100 to render harmless to tissues. Do not induce vomiting. Obtain medical attention.

Skin Contact : Immediately flood the skin with large quantities of water, preferably under a shower. Remove contaminated clothing as washing proceeds. Contaminated clothing should be washed or dry-cleaned before re-use. Obtain medical attention if blistering occurs or redness persists.

Eye Contact : Wash out eye for at least 15 minutes with plenty of water. Seek medical attention.

Effects and symptoms

Inhalation : Inhalation of the spray mist may produce severe irritation of respiratory tract characterised by coughing, choking or shortness of breath. Overexposure by inhalation may cause respiratory irritation.

Ingestion : May be fatal if swallowed. May cause burns to mouth, throat and stomach.

Skin contact : Corrosive to skin on contact. Skin contact may produce burns.

Eye contact : Corrosive to eyes.

Aggravated conditions : Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Notes to Physician : Treatment may be needed for pulmonary oedema or respiratory failure, which may be delayed following severe over exposure.

5. Fire-fighting measures

EXTINGUISHING MEDIA

Suitable	:Select extinguishing medium appropriate to other materials involved. Use water spray. Use foam, dry chemical or Carbon Dioxide. Keep containers and surroundings cool with water spray.
Unusual fire/explosion Hazards	:Hazardous composition products – CARBON MONOXIDE This product may give rise to hazardous fumes in a fire.
Special fire-fighting procedures	:Fire fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.
Protection of fire-fighters	:Wear full protective clothing and self-contained breathing apparatus.

6. Accidental Release Measures

Personal Precautions	: Ventilate the area to dispel residual vapours. Wear appropriate protective clothing. Eliminate all sources of ignition. Wear respiratory protection.
Environmental Precautions and	:Finally flush area with Soda Ash. Transfer into suitable containers for recovery or disposal. Neutralise and transfer to suitable containers. Contain and absorb using earth, sand or other inert material. Small spillages (up to 10 litres) may be flushed with large quantities (1000 litres) of water. Advise Authorities if undiluted spillage has entered water course or sewer, or has contaminated soil or vegetation.

7. Handling and Storage

Handling	: Storage area should be away from incompatible materials, Care should be taken to allow internal pressure to escape before releasing closures. Empty container may contain hazardous residues. Avoid contact with eyes, skin and clothing. Wear suitable protective clothing.. Emergency shower and eye wash facilities should be readily available. Adequate ventilation should be provided if there is a risk of vapour build-up.
Storage	: Storage area should be cool, under cover, well ventilated and out of direct sunlight. Store away from sources of heat or ignition.
Recommended use	: Use original container

8. Exposure Controls/Personal Protection

Engineering Measures	:Provide exhaust ventilation or other engineering controls to keep the airborne concentrations below their respective threshold limit value. Ensure that eyewash stations and safety showers are close to the workstation location.
Hygiene Measures	: Wash Hands after handling compounds and before eating, smoking, using lavatory, and at the end of the day.
<u>Personal Protective Equipment</u>	
Respiratory system	: Wear appropriate respirator when ventilation is inadequate.
Skin and body	: Wear protective overalls/suit.
Hands	: Impervious gloves.
Eyes	:: Face shield.

9. Physical and Chemical Properties

Physical state	: Liquid
Colour	: Clear
Odour	: Pungent.
Boiling Point	: 100.56
Melting Point	: -18(50%)
Density	: Not available
Vapour Density	: 1.59
Vapour Pressure	: 33.1-39.5mbar
Solubility	: Completely soluble
PH	: 1
Flash Point	: 69
Autoignition temperature	: 540
Viscosity	: 1.77cP 20 ⁰ C (pure)

10. Stability and Reactivity

Stability	: The product is stable.
Conditions to Avoid	: High temperatures.
Materials to Avoid	: Acetic Anhydride, Alkalies (i.e. Caustic Soda: Bleach), Mineral acids, Oxidising agents, Phosphorous Pentoxide

11. Toxicological Information

Local effects

Skin Irritation	: Hazardous in case of skin contact (corrosive).
Eye Irritation	: Extremely hazardous in case of eye contact (corrosive).
Acute Toxicity	: Oral LD50 (rat) 1210mg/kg.
Chronic Toxicity	: Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation, Repeated or prolonged exposure to spray mist may produce respiratory tract irritation, leading to frequent attacks of bronchial infection..

12. Ecological Information

Persistence/degradability	: Readily biodegradable
Ecotoxicity	: High concentrations injure aquatic life by effect on pH.

13. Disposal Considerations

Methods of Disposal : Waste of Residues : Contaminated packaging	: Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Classification	: Not applicable.

14. Transport Information

International Transport Regulations

UN :	UN number	1779
UN:	Proper shipping name	KILROCK-K
UN :	Class	8
UN :	Label	II

ADR/RID Class	8
ADR/RID Item Number	32b1
ADR/RID Hazard Identification number	80
TREMCARD TEC(R)	TEC(R)-89
IMDG : Proper shipping name	Kilrock-K
IMDG : Packing group	11
IMDG : Class	8

IATA ; Proper Shipping Name	Kilrock-K
IATA : Packing group	II
IATA : Class	8

15. Regulatory Information**EU Regulations****Hazard symbol**

Classification	: Corrosive
Risk Phrases	: R34 Causes Burns
Safety Phrases	: S1/2 Keep locked up and out of reach of children. : S23 Do not breathe gas/fumes/vapour/spray. : S26 in case of contact with eyes rinse immediately with plenty of water and seek medical advice. : S45 in case of accident or if you feel unwell seek medical advice immediately (show the label where possible)
Contains	: FORMIC ACID 54%
Product Use	:Classification and labelling have been performed according to EU directives 67/548/EEC, 88/379/EEC, including amendments and the intended use. -Consumer applications. Industrial applications.

16 Other Information**HISTORY**

Date of printing	: 9.9.2002
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Version	: 4

Notice to Reader

To the best of our knowledge the information contained herein is accurate. However neither the supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein we cannot guarantee that these are the only hazards that exist.

CHANGES SINCE PREVIOUS VERSIONS

Version 4: Updated to fit new format

KILROCK PRODUCTS LTD.