

Material Safety Data Sheet

according to EC-Regulation No. 1272/2008

updated: 03/2016

Version: 1.0

Section I - Product and Company Information

Product Name	sICAM-1 / CD54 ELISA Kit, monkey
Product Number	PK-EL-63356MK
Product Classification	Cell Biology Reagents
Company and Contact Information	PromoCell GmbH Sickingenstrasse 63/65 69126 Heidelberg Germany Phone : +49 6221 649 34 0 E-mail : info@promokine.info

Section II - Hazard Information

Product Name/Chemical Name	CAS Number	EC-No.	Weight %	Classification
N-Methyl-2-pyrrolodone	872-50-5	212-8282-1	< 5% (Substrate Solution)	Skin Irrit. 2 Eye Irrit. 2 STOT SE 3 Repr 1B
Phosphoric acid	7664-38-2	231-633-2	9 % (Stop Solution)	3.2/ Category 1B 2.16/ Category 1
Water, dest.	7732-18-5	231-791-2	(Stop Solution)	--

Section III - Formulation and Ingredients Information

Component	Description	Volume	Safety Information
Substrate Solution	N-Methyl-2-pyrrolodone (< 5%)		See below
Stop Solution	1 M phosphoric acid		See below

Substrate Solution & Stop Solution

Classification according to Regulation (EC) No 1272/2008[CLP]: No classification according to (EC) No. 1272/2008 (CLP) is necessary because of the low concentration of the critical parameter. Nevertheless the product should be handled with the usual care for all chemicals.

Labelling according to Regulation (EC) No 1272/2008[CLP]

Pictogram: none

Signal word: none

Hazard statement(s): none

Precautionary statement(s): none

Further information: Chemicals bear specific risks. That is why these chemicals are only to be handled by qualified staff in compliance with health and safety regulations.

Section IV - First Aid Measures

General advice: Consult a doctor, show this datasheet.

Stop Solution: Skin- and eye contact causes irritation.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a doctor.

In case of skin contact: Immediately take off contaminated clothing or shoes. Wash affected body parts with plenty amount of soap and water. Consult a doctor.

In case of eye contact: Wash the affected eye with water for a minimum of 10 minutes and immediately contact an eye specialist.

If swallowed: Never give anything by mouth to an unconscious person. Immediately wash your mouth with plenty of water. Immediately consult a doctor.

Substrate Solution: DO NOT induce vomiting.

Stop Solution: Swallow water in small amounts.

Section V – Fire-Fighting Measures

Suitable extinguishing media: water, dry powder extinguisher, carbon dioxide. Attention with dry powder extinguisher. It is not appropriate for in door fire, because raised foam causes lack of sight

Special protective equipment for firefighters: Wear breath protective mask and protective clothing during fire fighting.

Further information:

Substrate Solution: The product itself is not flammable. In case of fire toxic and corrosive gases may be formed. Because of the very low concentration of this mixture it is very unlikely that gases in a hazardous amount will be produced. Further data known.

Stop Solution: In case of fire, product-related hazardous fumes might be produced in addition to the usual flue gases (phosphorus oxide). Because of the very low concentration of this mixture it is very unlikely that above mentioned oxides will be produced on a hazardous amount. Further data not known.

Section VI - Accidental Release Measures

Personal precautions: Use personal protective equipment. In case of spilled mixture safety gloves have to be worn to prevent skin contact. Avoid breathing vapor, mist or gas. Care for appropriate ventilation.

Environmental precautions: Mixture must not be discarded in sewage system/ residual waste. Dilute residues cautiously with water and clean up with a paper towel.

Methods for cleaning up: Small amounts of the spilled mixture can be cleaned up with paper towel and discarded in an appropriate waste. Afterwards clean bench with water. Larger quantities must be soaked up with inert absorbent material and dispose of a hazardous waste. Keep in suitable closed containers for disposal.

Section VII - Handling and Storage

Precautions for safe handling: No smoking, eating, drinking or storage of food and beverages in the working laboratories. Wash hands after work. Remove safety clothing before entering a refreshment room. Wear protective clothing. Avoid inhalation of vapor or mist.

Stop Solution: Use normal measures for preventive fire protection. Development of explosive atmosphere is not possible.

Conditions for safe storage: Storage in light proof, well closed containers. Reseal opened bottles carefully and store in an upright position. Prevent direct sunlight and heat. Store in well aired storage rooms.

Recommended storage temperature: -20 °C – 8°C. Storage stability: stable.

Substrate Solution: Containers made of e.g. polyethylene are suitable.

Stop Solution: Acid resistant Containers (e.g.: glass, polyethylene) are suitable.

Section VIII - Personal Protection and Exposure Control Information

Components	Cas-Number	Limit value	Amount
N-Methyl-2-pyrrolidone	872-50-4	MAK (TRGS 900)	82 mg/m ³
		BGW (TRGS 903)	150 mg/l urine at the end of a shift, parameter: 5-Hydroxy-N-Methyl-2-pyrrolidone
Phosphoric acid	7664-38-2	Short term; 15 min	EU: 2 mg/m ³ USA: no data available
		Long term; 8h	EU: 1mg/m ³ USA: 1 mg/m ³

Personal protective equipment

Respiratory protection

Not required if used according to the intended use. In case of a divergent risk assessment or inadequate ventilation, use a suitable respirator.

Hand protection

Wear disposable protective gloves.

Skin and Body protection:

Wear lab coat and lab shoes.

Eye protection

Wear approved safety goggles.

Hygiene measures

Consider the usual good hygiene and safety practice by handling chemicals. Pregnant women should strictly avoid inhalation or skin contact.

Section IX - Physical and Chemical Properties

Property	Substrate Solution	Stop Solution
Appearance:	Colorless, yellowish or blueish liquid, slightly foaming when shaken	Colorless Liquid
Odor:	none	none
pH:	About 3, acid.	2, acid.
Ignition temperature:	No data available	No data available
Boiling Point:	100 °C	No data available
Melting Point:	No data available	~ 150 °C
Relative density:	1.003 g/ml	1,05 g/ml (20 °C)
Solubility	Very well soluble in Water	Very well soluble in Water
Explosive Properties	Mixture is not explosive	Mixture is not explosive

Section X - Chemical Stability and Reactivity

Property	Substrate Solution	Stop Solution
Chemical Stability:	No data available.	No data available.
Possibility of hazardous reactions:	No data available. If the product is used according to the instructions, no hazardous reactions are to be expected	For this concentration no relevant data available. If the product is used according to the instructions, no hazardous reactions are to be expected
Conditions to Avoid:	Direct sunlight, high temperature-damages the product.	Direct sunlight, high temperature
Materials to Avoid:	Heavy metal salts- damages the product	Bases (cause heat development), powdery metals (heat development and dynamics of the reaction depends on acid concentration)
Hazardous decomposition products:	No data known	No data available. Because of the low acid concentration in the mixture, no hazardous gases are expected.

Section XI - Toxicological Data

Substrate Solution

Acute toxicity

- Oral LD50: rat- 3598 mg/kg (N-Methyl-2-pyrrolidine)
- Inhalation LC50: rat- > 5.1 mg/l (N-Methyl-2-pyrrolidine)
- Dermal LD50: rabbit- 800 mg/kg (N-Methyl-2-pyrrolidine)
- Other information on acute toxicity: no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity: no data available

Reproductive toxicity: May damage the unborn child

Specific target organ toxicity – single exposure (Globally Harmonized System): may cause respiratory irritation

Specific target organ toxicity – repeated exposure (Globally Harmonized System): no specific target organ toxicant, repeated exposure

Aspiration hazard: no data available

Additional Information: None

Stop Solution

Acute toxicity

- Oral LD50: rat- 1530 mg/kg (phosphoric acid)
- Inhalation LC50: rat- 850 mg/kg (phosphoric acid)
- Dermal LD50: rat- 2730 mg/kg (phosphoric acid)
- Other information on acute toxicity: no data available

Skin corrosion/irritation: rabbit- 24h - strong primary irritation to the skin

Serious eye damage/eye irritation: rabbit- strong eye irritation

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no CMR effects.

Carcinogenicity: no CMR effects.

Reproductive toxicity: no CMR effects.

Specific target organ toxicity – single exposure (Globally Harmonized System): no data available

Specific target organ toxicity – repeated exposure (Globally Harmonized System): no data available

Additional Information: None

Section XII - Ecological Information

Substrate Solution:

Persistence and degradability: N-Methyl-2-pyrrolidine: > 90 %/ 20d, easily biologically degradable

Toxicity: N-Methyl-2-pyrrolidine:

LC50- Bluegill (*Lepomis macrochirus*): 832 mg/l, 96h;

LC50- Gold orfe (*Leuciscus idus*): > 500 mg/l, 96h;

IC50- Green algae (*Desmodesmus subspicatus*): > 500 mg/l, 72h;

EC50- Invertebrates (*Daphnia magna*): 4897 mg/l, 48h;

Bioaccumulative potential: N-Methyl-2-pyrrolidine: Distribution log P(o/w) <= 4, there is no bioaccumulation expected

Mobility in soil: no information available

PBT and vPvB assessment: None of the components is listed as PBT or vPvB relevant.

Other adverse effects: No further effects known. If used appropriately, no ecological problems are to be expected.

Stop Solution:

Persistence and degradability: no data available

Toxicity: no data available

Mobility in soil: In case of shifting the pH value there might be some damaging effects for aquatic organism. The mixture must not dispose in the sewage system without pretreatment.

PBT and vPvB assessment: None of the components is listed as PBT or vPvB relevant.

Other adverse effects: No further effects known. If used appropriately, no ecological problems are to be expected.

Section XIII - Disposal

Product: All national and local laws have to be considered. This product is only allowed to be discarded by a licensed waste management company. Untreated waste must not be disposed with residual waste.

EAV/EWC Codes:

18 01 07 Chemicals from diagnostic in human medicine

18 02 06 Chemicals from research and diagnostic in veterinary medicine

18 01 03 Clinical waste

18 01 06 Chemicals consisting of or containing dangerous substances

Medical Waste, Austria ÖNORM: 97101

In other countries different conditions might be valid. All national and local laws have to be considered.

Packaging: Rinse container with water, dispose as the product.

Section XIV - Transport Information

Not dangerous good during transportation.

Section XV - Classification and Regulatory Information

Safety health and environmental regulations/legislation specific for the substance or mixture: This safety data sheet meets the requirements of the Regulation (EC) 453/2010 to amending Regulation (EC) 1907/2006.

Water endangering class according to VwVwS (WGK, Germany): Substrate Solution: WGK 1

Other regulations, limitations and prohibitive regulations: Substrate Solution: Substances of very high concern (SVHC) according (EC) 1907/2006, Article 57 (REACH): N-Methyl- 2- Pyrrolodine (CAS 872-50-4)

Chemical safety assessment: No data available.

Section XVI - Other Information / Disclaimer

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. PromoCell GmbH shall not be held liable for any damage resulting from handling or contact with the above product.

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