

MATERIAL SAFETY DATA SHEET

SAFEWING MP I 1938 ECO

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Substance key: 000000130378
Version : 1 - / USARevision Date: 03/18/2004
Date of printing :04/27/2004

Section 01 - Product Information

Identification of the company:Clariant Corporation
4000 Monroe Road
Charlotte, 28205
Telephone No.: +1 704 331 7000**Information of the substance/preparation:**Division Functional Chemicals
++49(0)69-305-2092/15315/32251**Emergency tel. number:** +1 800-424-9300 CHEMTREC**Trade name:****SAFEWING MP I 1938 ECO****Primary product use:**

Aircraft de-icing

Chemical family:

Aqueous solution of corrosion inhibitors and surface active agents in propylene glycol

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
1,2-Propanediol	57-55-6	> 1 %

Section 03 - Hazards identification

Expected Route of entry:**Inhalation:** no
Skin contact: no
Eye contact: no
Ingestion: no
Skin absorption: no**Health effects of exposure:**

Propylene Glycol (57-55-6)

Propylene Glycol: May cause eye irritation. Skin irritation may occur in sensitive individuals after repeated or prolonged exposure. Chronic excessive ingestion may cause a reduction in red-blood cell count. Standard mutagenicity tests indicate it is not mutagenic or otherwise genotoxic. Reproductive and developmental toxicity studies indicate little or no hazard below maternally toxic doses.

Known effects on other illnesses:

No known effects on other illnesses for this product.

Listed carcinogen:IARC: No
NTP: No
OSHA: No
Other: No

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HMIS:

Health: 1

Flammability: 1

Reactivity: 0

Personal protection: B

Section 04 - First aid measures

After inhalation:

Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:

Immediately flush skin under running water for at least fifteen minutes. Seek medical attention if irritation or chemical burn is present.

After contact with eyes:

Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:

If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:

None known.

Section 05 - Fire fighting measures

Flashpoint: > 212 °F
Method: DIN 51376 (open cup)

Lower explosion limit: not determined

Upper explosion limit: not determined

Self ignition: not self-igniting

Ignition temperature: > 752 °F
Method: DIN 51794

Hazardous combustion products:

In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO)

Extinguishing media: water spray jet
carbon dioxide
alcohol-resistant foam
dry powder

Special fire fighting procedure:

Wear positive pressure self-contained breathing apparatus (SCBA) and full protective equipment.

Unusual fire and explosion hazards: Emits toxic fumes under fire conditions.

Section 06 - Accidental release measures

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Steps to be taken in case of spill or leak:

Wearing appropriate personal protective equipment, contain spill, collect onto inert absorbent, and place in a suitable container.

Section 07 - Handling and storage**Advice on safe handling:**

Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:

Keep containers closed.

Section 08 - Exposure controls / personal protection**Occupational exposure limits:**

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
PROPYLENE GLYCOL, TOTAL VAPOR AND AEROSOL	57-55-6	US WEEL Guides Data	Time Weighted Average (TWA):	50 ppm	
PROPYLENE GLYCOL, AEROSOL ONLY	57-55-6	US WEEL Guides Data	Time Weighted Average (TWA):		10 mg/m3

Respiratory protection:

If airborne concentrations pose a health hazard, become irritating or exceed recommended limits, use a NIOSH approved respirator in accordance with OSHA respiratory protection requirements under 29 CFR 1910.134

Hand protection:

Butyl Rubber, PVC Or Neoprene.

Eye protection:

Safety glasses or chemical splash goggles.

Other protective equipment:

Protective clothing to minimize skin contact should be worn. Chemically resistant safety shoes. Wash contaminated clothing with soap and water and dry before reuse. Safety showers and eyewash stations should be provided in all areas where this material is handled.

Advice on system design:

Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: Liquid
Color: orange
Odor: almost odourless

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pH:	8 - 9.5 (20 °C) Method: DIN 19268 Determined in the undiluted form
Solubility in water:	(20 °C) miscible in all proportions
Soluble in ... :	fat not determined
Density:	1.04 g/cm ³ (20 °C) Method: DIN 51757
Solidifying Point :	< -40 °F Method: ASTM D 1177
Boiling temperature :	257 °F Method: DIN 53171
Vapor pressure:	not determined
Bulk density:	Not applicable
Relative vapor density:	not determined
Partitioning coef. octanol/water:	Not applicable
Viscosity / (kinematic):	29 - 31 mm ² /s (20 °C) Method: DIN 51562

Section 10 - Stability and reactivity

Thermal decomposition:	(Heating rate:3 K/min) Method: DSC No decomposition upto 300 °C.
Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	None known.

Section 11 - Toxicological information

Product information:	
Acute oral toxicity:	LD50 > 5,000 mg/kg (rat) Method: OECD 401 Source: Analogy
Acute inhalation toxicity:	not determined
Acute dermal toxicity:	not determined
Skin irritation:	Non-irritating (rabbit)
Eye irritation:	Non-irritating (rabbit)

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Date of printing :04/27/2004**Section 12 - Ecological information****Product information:**

Biodegradation:	99 % (3 d) good degradability Method: OECD 301 E
Fish toxicity:	LC50 7,071 mg/l (96 h, zebra fish) Method: OECD 203
Daphnia toxicity:	EC50 > 10 g/l (48 h, Daphnia magna) Method: OECD 202
Algae toxicity:	EC50 > 10 g/l (72 h, Scenedesmus subspicatus) Method: OECD 201
Bacteria toxicity:	EC0 > 25 g/l (3 h) Method: OECD 209 EC50 > 10 g/l (30 min, Vibrio fisheri) Method: DIN EN ISO 11348-2
Chemical oxygen demand (COD):	1,400 mg/g Method: DIN 38409-H41

Remarks:

Biologically degradable, when diluted may be degraded in biological purification plants
Harmful effects to fish and bacteria: not harmful

Section 13 - Disposal considerations**Waste disposal information:**

Recommended disposal is by incineration in approved facilities.

RCRA hazardous waste:

No -- Not as sold.
RCRA number: NONE

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information**TSCA Status:**

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard: no

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Pressure hazard: no
Fire hazard: no
Immediate/acute: no
Delayed/chronic: no

SARA 313 information:

This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act:

Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:**FDA:**

This product is not registered with the FDA.

Section 16 - Other information

Other precautions:

None Known

Label information:

ATTENTION!

UPON EVALUATION, IT HAS BEEN DETERMINED THAT THIS PRODUCT IS NOT SUBJECT TO THE LABELING REQUIREMENTS OF OSHA REGULATION 29CFR 1910.1200.

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wear proper protective equipment. Keep container closed when not in use.

Eye contact: immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs. Skin contact: wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse. Ingestion: seek medical attention immediately. Inhalation: remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if respiratory irritation continues.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.