

# MATERIAL SAFETY DATA SHEET

Description: SAF STEAM Revision Number: 0

Document Number: MSDS S007



## HEAVY DUTY STEAM CLEANING CONCENTRATION

### GENERAL

SAF-STEAM is a heavy duty, alkaline steam cleaning liquid, improving the cleaning efficiency of cleaning equipment.

### FORMULATION

SAF-STEAM is based on a balance of biodegradable, non-ionic and an-ionic surfactants, coupling solvents, chelating and soil suspending inorganic, but contains no free alkali.

### PRODUCT DESCRIPTION

TEST	UNIT	SPECIFICATIONS
Appearance		Clear red liquid
Density	g/cm <sup>3</sup>	1,04 - 1.06
pH	°C	12,0 - 14,0
Flash point		None
TLV	ppm	250

### PROPERTIES

- \* Detergents ensure oil free surface.
- \* Effectiveness of ingredients reduces cleaning time, saving operating costs.
- \* Special formulation ensures no clogging of steam lines.
- \* Economical - dilutes up to 1:250.
- \* 100% Biodegradable.
- \* Can be used hot or cold.

### APPLICATION

For steam washers fitted with a pre-dilution tank, pre-dilute up to 1:20. Select the appropriate nozzle dilution ratio, depending on the degree of dirt to be removed. Final dilutions can vary up to 1:250.

**THE RECOMMENDATIONS CONTAINED HERE-IN ARE BASED ON LABORATORY TESTS AND INFIELD USE EXPERIENCE AND ARE TO THE BEST OF OUR KNOWLEDGE ACCURATE. SINCE TERMS AND CONDITIONS OF ACTUAL USE ARE BEYOND OUR CONTROL, ALL RECOMMENDATIONS ARE MADE WITHOUT WARRANTY, EXPRESS OR IMPLIED.**

Prepared by: Sabelo Dladla  
Reviewed by: Doreen Gwanyuki  
Status: Issued

Approved by: Doug Cutter  
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## Company Details

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## 1. Product Identification

Trade Name	<b>SAF - STEAM</b>	Product code: S007
Chemical Family	Surfactants, glycol ether, carbonates	
Chemical Name	Formulated chemical	
Product Use	Steam cleaning liquid, improving the cleaning efficiency of cleaning equipment.	

## 2. Composition

CAS No.	Hazardous Components	Approx. %	OSHA PEL
6834-92-0	Sodium metasilicate (P)	<10	Skn-rbt 250 mg/24H SEV
EEC classification	Irritant (xi), SAF – STEAM		
R Phrases	R36/37/38, SAF - STEAM		

## 3. Hazards Identification

Main Hazard	Irritant
Fire	Non Flammable
Inhalation	Excess spray – coughing
Skin contact	Irritant, defatting of skin after prolonged exposure
Eye contact	Irritant, burning
Ingestion	Nausea, vomiting

## 4. First Aid Measures

Inhalation	Move patient to fresh air,
Skin contact	Rinse area with water.
Eye contact	Flush eyes with running water with eyelids opened for 15 min. If irritation persists seek medical attention.
Ingestion	Rinse mouth with water, allow as much water as possible. Seek medical attention.

## 5. Fire Fighting Measures

Extinguishing media	Product non-flammable. Use extinguishing agents for surrounding fire.
Special hazard	None known

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Protective clothing	Approved self contained breathing apparatus should be utilised or equivalent.
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### 6. Accidental Release Measures

Personal precaution	Avoid prolonged skin contact with the concentrate.
Environmental precaution	The alkaline nature of the product should be taken into consideration, dilute product before disposing.
Small spills	Remove excess with absorbent material and flush residue with water.
Large spills	Prevent the discharge of large amounts of concentrated product to enter sewerages and watercourses.

### 7. Handling & Storage

Handling	Normal handling procedure for detergents to minimise personal exposure.
Storage	Store in a cool dry area. Keep container closed.

### 8. Exposure Controls/Personal Protection

Workers should have access to an eye wash fountain.
If the specific application may result in splashing, safety goggles (VNC11 – supplier – MSA) should be supplied.
If prolonged or frequent contact is expected, <b>NEOPRENE</b> gloves (Technic 420 – supplier – MSA) should be utilised
Handle in a well ventilated area, or 6300 respiratory/6059 cartridge (3M – supplier) should be utilised if ventilation is not adequate.

### 9. Physical and Chemical Properties

Appearance	Clear red liquid
pH	12.0 – 13.0
Density	1.04 – 1.06
Solubility (water)	100 %

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### 10. Stability and Reactivity

Stability	Stable under normal conditions
Incompatible	Strong acids
Hazardous decomposition products	None Known

### 11. Toxicological Information (based on sodium metasilicate)

Toxicity	Acute oral : LD50 : 1153 mg/kg, rat
	Acute dermal : skn – (rbt) 250 mg/24H SEV
Carcinogenicity	No evidence of carcinogenic properties
Mutagenicity	No evidence of mutagenic effects
Teratogenicity	No evidence of teratogenic effects
Reproductive hazard	Not expected to impair fertility

### 12. Ecological Information (based on glycol ether)

Acute toxicity – fish	96 hr bioassay LC50: 1700 mg/l
Acute toxicity - Daphnia	48 hr bioassay LC50 : >1000 mg/l
Bacterial	IC50 : >5000 mg/l
Biodegradability	Biodegradation : 88 % in 20 days
Bioaccumulation	No possibility of bioaccumulation – completely water soluble and biodegradable

### 13. Disposal Considerations

Disposal method	Dispose as per local agreed government method.
Disposal packaging	Recycle or wash thoroughly and re-use the container.

### 14. Transport Information

UN No.	3082
Substance identity no	S007
Packaging group	Class 9: Irritant liquid
ADR/RID class	III
Marine Pollutant	No
IMO/IMDG Classification	IMDG Class 9 Irritant liquid
IATA Classification	Class 9 Irritant liquid

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## 15. Regulatory Information

EEC-hazard classification	Irritant (Xi)
Risk phrases	R36/37/38
Safety phrases	S24/25/36

## 16. Other Information

References: SABS 0265: 1999, SABS 0228: 1995, SABS ISO 11014-1: 1994, M.S.D.S. (Suppliers of raw's)
Issued by: Sabelo Dladla
<b>EMERGENCY NUMBERS: 011 406 4000 / 011 406 4241</b>

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## APPENDIX A

Revision Date (dd/mm/yy)	Issued By	Revision History		Revision No.
		Description	DCN No.	
18/02/2011	Technical Manager	New Issue	MSDS S007	00

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