

MATERIAL SAFETY DATA SHEET

Description: SAF PEN Revision Number: 01
Document Number: MSDS P003



A NON-FLAMMABLE RELEASE AGENT PENETRANT/RUST LOOSENER

GENERAL

This superior release agent contains a blend of carefully selected penetrants. It contains NO fluorinated hydrocarbons and its special formula ensures that it does not burn and will not support combustion. It has been specially developed for use in areas of high fire risk, such as compressor rooms, control rooms and of course underground.

FORMULATION

SAF-PEN contains carefully selected penetrating oils, corrosion inhibitors, petroleum based solvents, de-watering agents and coupling agents.

PRODUCT DESCRIPTION

TEST	UNIT	SPECIFICATION
Appearance		Dark brown liquid
Density	g/cm ³	1.200 – 1.300

PROPERTIES

- * Non-flammable
- * Penetrate/loosen rust, corrosion, lead, tar, grease and other dirt deposits.
- * Helps prevent further corrosion.
- * Contains no Acids.
- * Loosens stuck (seized) metal parts.
- * Demoisturiser.
- * Easy dismantling of equipment.
- * Lubricates.
- * Shake can a few times prior to spraying.
- * Use in upright position.
- * Spray lightly onto effected areas.
- * Allow sufficient time for penetration.

THE RECOMMENDATIONS CONTAINED HERE-IN IS 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: Zanele Selala
Status: Issued

Approved by: Doug Cutter
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Company Details

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1. Product Identification

Trade Name	SAF-PEN	Product code:	P003
Chemical Family	Release agent/penetrant.		
Chemical Name	Chlorinated Hydrocarbons.		
Product Use	Release agent and penetrant.		
UN Number	1789 (based on hazardous raw material with the highest % and degree of hazardousness)		

2. Composition

CAS No.	Hazardous Components	Approx. %	OSHA PEL/Limit
77650-28-3	Petroleum distillate	10 - 20	Skn-mus TDLo: 977g/kg/8W-l
127-18-4	Tetrachloroethylene	50 - 60	TWA: 100ppm, CL: 200ppm
75-09-2	Methylene Chloride	10 - 20	TWA: 500 ppm, CL: 1000 ppm
111-76-2	Glycol ether	<10	25ppm TWA; 120 mg/m ³
EEC classification	Harmful (Xn), SAF - PEN		
R Phrases	R20/21/22, SAF – PEN		

3. Hazards Identification

Main hazard	HARMFUL on inhalation, skin contact and fatal on ingestion.
Inhalation	Irritation, dizziness. Can cause chemical pneumonitis when aspirated into the lungs – can be fatal. Hallucinations, coma and pulmonary changes.
Skin contact	Can cause dermatitis, especially after prolonged contact. Defatting. Long term, repeated exposure may lead to dermatitis, can be absorbed through skin. Avoid skin contact at all times.
Eye contact	Burning, irritation. Severe eye irritant, possible serious damage to eyes.
Ingestion	Nausea, vomiting, fatal on ingestion on large quantities
Other	Handle product with care at all times.

4. First Aid Measures

Inhalation	Move to fresh air. If rapid recovery does not occur, obtain medical attention.
Skin contact	Remove contaminated clothing. Wash with water and soap. Apply cream if necessary.
Eye contact	Wash with water for at least 15 minutes. Seek medical advice.
Ingestion	Do not induce vomiting. Seek medical advice urgently.

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5. Fire Fighting Measures

Product is non flammable, use suitable extinguishing media for surrounding areas.	
Special hazard	Extremely highly toxic fumes will be liberated when burning.
Protective clothing	Approved self contained breathing apparatus (NIOSH) should be utilised or equivalent equipment.

6. Accidental Release Measures

Personal precaution	Avoid inhalation of fumes, skin contact at all times.
Environmental precautions	Do not discharge into sewerages, storm water drains or any places that may harm the environment.
Small spills	Residues and spillage should be absorbed with clay or sand. Wash area with detergent and water. Do not allow into effluent or other water routes.
Large spills	Residues and spillage should be absorbed with clay or sand. Do not discharge into effluent/drains or other water routes. Wash area with detergent and water and dry with cloths. Dispose of cloths in closed containers in a responsible manner.

7. Handling & Storage

Storage	Store at ambient temperatures. Keep containers well sealed.
Handling	Should be handled in accordance with good industrial safety practices. Keep away from heat, sparks and flames. Use only in well ventilated areas.

8. Exposure Controls/Personal Protection

Workers should have access to an eye wash fountain.
HANDLE PRODUCT WITH CARE AT ALL TIMES.
A) The below RESPIRATORY KIT is manufactured by 3M and is suitable for use on this product
1) Full Face Respirators – 3M6800 – where product splashing is possible
2) Half mask – 3M6300 – where product splashing is unlikely
3) Combination Cartridge Type: ABEK1 – 3M6059
4) Pre – filter N95 – 3M5N11
5) Retainer – 3M501
6) Note as soon as one experiences difficulty in breathing when wearing a mask, a NEW cartridge (same as the replaced one) and pre-filter is required. ADEQUATE VENTILATION IS HIGHLY RECOMMENDED AT ALL TIMES EVEN WHEN USING THE ABOVE RESPIRATORY KIT.
B) NITRILE gloves (Ultranitril 492 supplier – MSA) must be used when handling SAF –PEN.
C) Safety shoes and overalls are recommended when handling this product

9. Physical and Chemical Properties

Appearance	Clear brown liquid.
Density	1.200-1.300

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10. Stability and Reactivity

Stability	Stable.
Conditions to avoid	Keep away from strong oxidising agents.
Hazardous decomposition products	Acrid smoke and irritating fumes. Carbon monoxide may be evolved if incomplete combustion occurs. Phosgene and CL ⁻

11. Toxicological Information (based on Tetrachloroethylene)

Toxicity	Acute oral: LD50: 2629 mg/kg, rat
	Acute dermal: LD50: 34 mg/l, rat
Carcinogenicity	Confirmed carcinogen
Mutagenicity	Experimental effects reported
Teratogenicity	Teratogenic effects reported
Long-term experience of handling this class of product under Industrial conditions indicates human systemic effects by ingestion and inhalation.	

12. Ecological Information (based on Tetrachloroethylene)

Aquatic toxicity – rainbow trout	96 hr LC50: 10 – 100 mg/l
Aquatic toxicity – daphnia	LC50: 3.3 – 18.0 mg/l
Aquatic toxicity - algae	The product is harmful to plants and other living organisms.
Biodegradability	Not expected to biodegrade
Bioaccumulation	There's a high possibility of bioaccumulation
Mobility	Spillages may penetrate the soil to cause ground water contamination.

13. Disposal Considerations

Dispose off at waste disposable company. Do not discharge to effluent or soil.	
Disposal of packaging	Strictly provide to approved drum collectors or recovers.

14. Transport Information

UN No.	1897 (based on hazardous raw material with the highest % and degree of hazardousness)
Substance identity no	P003
ADR/RID class	Class 6.1 (Harmful liquid)
Packaging group	III
Marine Pollutant	Yes
IMO/IMDG Classification	IMDG Class 6.1 (Harmful liquid)
IATA Classification	Class 6.1 (Harmful liquid)

15. Regulatory Information

EEC-hazard classification	Harmful (Xn)
Risk phrases	R20/21/22 R52
Safety phrases	S24/25 S36 S56

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16. Other Information

References: SABS 0265: 1999, SABS 0228: 1995, SABS ISO 11014-1: 1999, M.S.D.S.
(Suppliers of raw's)

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EMERGENCY NUMBERS: 011 406 4000/ 082 412 2298

The information in this MSDS is based on current knowledge and experience at the date of publication. This MSDS summarises our best knowledge of the health and safety hazard information of the product and is intended only as a guide to the appropriate precautionary handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification of the product. The data relates only to the specific product designated, and does not relate to use of the product in combination with any other material or use of the product in any process. The data is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability for fitness for a particular purpose is made with respect to the product, its composition, its safety or the information contained in this MSDS sheet.

APPENDIX A

Revision Date (dd/mm/yy)	Issued By	Revision History		Revision No.
		Description	DCN No.	
20/05/2013	Technical Manager	New Issue	MSDS P003	00
19/05/2016	Systems and Food & Beverage Specialist	Document Review	MSDS P003	01

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