

MATERIAL SAFETY DATA SHEET

Description: SAF EA XTREME FORCE
Revision Number: 02
Document Number: MSDS EA 017



TRIPLE STRENGTHENED, SUPERIOR RINSABILITY, "EA" XTREME PERFORMANCE SOLVENT BASED DEGREASER

GENERAL:

SAF-EA XTREME FORCE - This new generation ground-breaking, highly advanced triple strengthened environmentally caring, high performance solvent based degreaser, has been developed with the "cradle to grave" concept in mind to achieve optimum degreasing by using a unique blend of biodegradable non-toxic solvents. SAF-EA XTREME FORCE has revolutionised industry sectors via supreme mitigation of negative environmental impacts offered by conventional degreasers through innovation by chemical industry leaders, frontiers and trailblazers since 1981.

FORMULATION:

SAF-EA XTREME FORCE contains scientifically proven readily biodegradable petroleum distillates with more than 60% removal of theoretical carbon dioxide (ThCO₂) within 28 days. Pure naturally extracted triple pressed solvents and wetting agents with non-toxic degradation components obtained from excellent biodegradability properties as per First World countries specifications are also contained.

PRODUCT DESCRIPTION:

<u>TEST</u>	<u>UNIT OF MEASURE</u>	<u>SPECIFICATION</u>
APPEARANCE	-	Clear green liquid
SPECIFIC GRAVITY	g/cm ³	0.75 – 0.80
SOLUBILITY IN WATER	-	emulsifies

PROPERTIES:

- Totally environmentally acceptable
- Contains no highly toxic aromatic solvents
- More than Readily Biodegradable
- Excellent rinsability properties, no gel formation, no oily film residue
- Superior degreasing and rapid thick viscous grease dissolving properties
- No toxic harmful unbearable fumes especially with adequate ventilation
- No paint stripping, can be used in a dip tank processes
- Removes carbon, oil, bitumen, grease, waxes, fats, etc.

Prepared by: Sabelo Dladla
Reviewed by: Zanele Selala
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- Safe for use in all metal

APPLICATION:

- Degreasing of floors in workshops, petrol stations, drive ways, maintenance areas, industrial sites or any oily greasy painted or unpainted cement floors
- Degreasing of industrial machinery, gearboxes, differentials, heavy engineering parts, transformers, engine components or units, open gear and rope lubrications, etc.
- Degreasing of surfaces prior to coating, equipments before assembling after repairing, machining and maintenance.
- Rapid dissolving of thick viscous greasy equipments like hubs, boxes, fifth wheels, drives, road construction, mining, railway machines or any equipment where any type of grease has to be dissolved and removed.
- Removal of thick bitumen and tar from road construction vehicles without touching the paint finish, not excluding removing waxes and process oils in all relevant areas including repair shops and shipyards.
- Fast cleansing results when applied in re-circulating and agitated parts washers, which also includes a dip tank process for supra extra greasy equipments.
- For light degreasing application SAF-EA XTREME FORCE can be diluted with illuminating paraffin up to 1:10.
- **SAF-EA XTREME FORCE CAN BE APPLIED BY SPRAYING, BRUSHING OR DIPPING/SOAKING.**
- **FLOOR DEGREASING** – Pour an adequate amount to the area to be degreased, depending on the degree of dirt, as stated above the product can be diluted with illuminating paraffin up to 1:10.
- Allow contact time where possible to minimise the need for mechanical action, the mixture can be agitated using a hard broom or any other suitable equipment.
- Rinse the degreased area with a high pressure washer, hose pipe or buckets of water depending on the equipment available. Allow area to dry after rinsing.
- **EQUIPMENT DEGREASING** – the product can be sprayed using suitable material to the machine or equipment to be degreased at dilution ratios stated above, should enough contact time of approximately 5 – 10 minutes be allowed, no agitation will be essential, although mechanical action may be essential in tough thick burned oil, grease, bitumen etc.
- The product can also be used in a dip tank process to remove tough grease, bitumen, burned carbon etc, the equipment can be soaked a minimum of 4 hrs. All parts should be rinsed with water after degreasing.

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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.

CONTROLLED DOCUMENT

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1. Product Identification

Trade Name	SAF-EA XTREME FORCE	Product code: EA017
Chemical Family	Aliphatic straight chained hydrocarbons, natural solvents and surfactants	
Chemical Name	Formulated chemical	
Product Use	Degreasing, grease dissolving & removal of dirt, grime, bitumen, tar etc.	
UN Number	3295 - (based on the main hazardous component)	

2. Composition

CAS No.	Hazardous Components	Approx %	Exposure limits
64771-72-8	Aliphatic hydrocarbon blend	>60	TWA 350 mg/m ³
141-43-5	Monoethanolamine	< 1	TWA 3 ppm, STEL 6 ppm
EEC - classification	Flammable (F), SAF-EA XTREME FORCE		
Risk phrases	R10 R36/37/38 R65, SAF- EA XTREME FORCE		

3. Hazards Identification

Main Hazard	Flammable liquid
Fire	Flammable
Skin contact	Prolonged contact results to defatting of skin. Avoid prolonged skin contact; wear gloves to prevent possible effects.
Inhalation	Avoid unnecessary inhalation, may lead to drowsiness. Work in a well ventilated area or wear mask if ventilation is limited.
Eye contact	Irritant, burning.
Ingestion	Possible serious damage to lungs. May be fatal if swallowed.

4. First Aid Measures

Inhalation	Move patient to fresh air and allow some water.
Skin contact	Wash area well with soap and water, apply barrier cream.
Eye contact	Flush eyes with water for at least 15 minutes. Irrigate eyes thoroughly while lifting eyelids and rolling eyeballs. If irritation persists, seek medical attention.
Ingestion	Do not induce vomiting – seek medical attention immediately.

5. Fire Fighting Measures

Extinguishing media	Extinguish with carbon dioxide (CO ₂), dry powder and foam. Suitable respiratory unit should be utilised.
Special hazards	Toxic fumes will be liberated on decomposition.
Protective clothing	Self contained breathing apparatus (NIOSH approved) or equivalent should be utilised.

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6. Accidental Release Measures

Land	Prevent from entering drains and watercourses, absorb with suitable absorbent and dispose in accordance with local regulations
Water	Confine spill by using absorbent booms, remove by skimming or with suitable absorbent

7. Handling & Storage

Handling	Normal handling procedure for solvent based degreasers to minimise personal exposure. Do not smoke or use near sparks or elevated temperatures. Wear protective equipment.
Storage	Store in a cool dry area. Keep containers sealed. Good normal warehouse practices

8. Exposure Controls/Personal Protection

Staff should have access to an eye wash fountain.
If specific application may result to splashing, safety goggles (VNC 11 – supplier – MSA) should be utilised.
Nitrile gloves (Ultranitril 492-supplier MSA) should be utilised when handling the product.
Work in a well-ventilated area or 6300 type mask/6059 cartridge (3M – supplier) should be utilised where ventilation isn't adequate.

9. Physical and Chemical Properties

Appearance	Clear green liquid
Odour	Citrus
Density	0.75 – 0.80
Flash point – closed cup	46 °C

10. Stability and Reactivity

Stability	Stable under normal conditions. Keep away from heat, sparks or elevated temperatures.
Incompatible materials	Strong oxidising agents
Hazardous decomposition products	Carbon monoxide & dioxide will be liberated on decomposition.

11. Toxicological Information (based on hydrocarbon blend)

Toxicity	Acute oral: LD50 > 5000 mg/kg (4 hr exposure)
	Acute dermal: LD > 2000 mg/kg (4 hr exposure)
Carcinogenicity	No evidence of carcinogenic effects.
Mutagenicity	Not expected to be mutagenic.
Teratogenicity	No evidence of teratogenic effects.

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Reproductive hazard	Not expected to impair fertility.
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12. Ecological Information (based on surfactant)

Acute toxicity - fish	LC50 (rainbow trout) (96 hr) (semi-static) 10-100 mg/l
Acute toxicity - daphnia	EC (daphnia magna) (48 hour) 5-25 mg/l
Mobility	Not expected
Biodegradability	Above 80% biodegradability, requirements of the EEC directive 82/242 are met.
Bio accumulation	Not expected to bio accumulate, this surfactant is expected to be removed automatically through the biological treatment process.

13. Disposal Considerations

Although the product is not expected to accumulate in the aqueous environment due to its ability to biodegrade rapidly but it still has to be treated as below. Disposal should be strictly in accordance with applicable regional, national, and local laws and regulations.	
Disposal of packaging	Do not puncture, vent in a safe place away from sparks and fire. Send container to recognised drum recoverers or recyclers.

14. Transport Information

Substance identity no.	EA017
Marine Pollutant	No, caution should be taken, the material is solvent based.
ADR/RID class	Class 3 flammable liquid
IMDG – packaging group	III
IATA class	Class 3 flammable liquid

15. Regulatory Information

EEC – hazard classification	Flammable (F)
Risk phrases	R10 R20/22/38 R65
Safety phrases	S7 S23/24/25 S38 S56 S62

16. Other Information

References: SABS 0265: 1999, SABS 0228:1995, SABS ISO 11014-1: 1994, M.S.D.S. Exclusive Research on Biodegradability
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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

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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.	
11/02/2011	Technical Manager	New Issue	MSDS EA017	00
20/05/2013	Technical Manager	Document review and change of Company logo.	MSDS EA017	01
25/01/2017	Systems and Food & Beverage Specialist	Document review	MSDS EA017	02

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