

SATACEN 3

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 3/8/2024 Revision date: 3/8/2027 Version: 1.2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Trade name : SATACEN 3
Product code : SATACEN 3
Synonyms : Fuel borne catalyst for regeneration of diesel particulate filter
Product group : Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Catalyst

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ImproChem(Pty) Ltd T/A AECI Water
1 Wharhirst Road
Umbogintwini - South Africa
T +27(31) 949 8200

1.4. Emergency telephone number

Emergency number : 0800 SPILLS or 0800 774557

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Specific target organ toxicity – Repeated exposure, Category 2 H373

Aspiration hazard, Category 1 H304

Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H373 - May cause damage to organs through prolonged or repeated exposure.
H304 - May be fatal if swallowed and enters airways.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P201 - Obtain special instructions before use.
P280 - Wear goggles, gloves, clothing and respiratory protection
P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.
P391 - Collect spillage.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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SECTION 3: Composition/information on ingredients

3.1. Substances

Name : SATACEN 3

Name	Product identifier	%
HYDROCARBONS , C11-C13,ISOALKANES, < 2% AROMATICS	(CAS-No.) 90622-58-5 (EC-No.) 292-460-6	50 – 75
ORGANOMETALLIC IRON COMPOUND	(CAS-No.) Proprietary	10 – 25
HEAVY AROMATIC NAPHTHA 100	(CAS-No.) 64742-94-5 (EC-No.) 265-198-5 (EC Index-No.) 649-424-00-3	0.25 – 2.5
FERROCENE	(CAS-No.) 102-54-5	0.5 – 1
1,2,4 TRIMETHYLBENZENE	(CAS-No.) 95-63-6 (EC-No.) 202-436-9 (EC Index-No.) 601-043-00-3	0.1 – 0.25
NAPHTHALENE	(CAS-No.) 91-20-3 (EC-No.) 202-049-5 (EC Index-No.) 601-052-00-2	0.1 – 0.25

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Treat symptomatically. Seek immediate medical advice. Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Treat symptomatically. Seek immediate medical advice.
First-aid measures after skin contact	: Wash immediately with lots of water (15 minutes)/shower. Remove contaminated clothing and shoes. Contaminated clothing and shoes should be discarded or washed and decontaminated before reuse. . Obtain medical attention. Wash skin with plenty of water.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth with water. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Never give anything by mouth to an unconscious person. Vomiting: prevent asphyxia/aspiration pneumonia. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: Irritation of the respiratory tract.
Symptoms/effects after skin contact	: Causes skin irritation. Repeated dermal contact with material can lead to defatting of the skin.
Symptoms/effects after eye contact	: Causes eye irritation.
Symptoms/effects after ingestion	: Risk of lung oedema.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustible.
Explosion hazard	: Heat may cause pressure rise in tanks/drums: explosion risk.
Hazardous decomposition products in case of fire	: Carbon dioxide. Carbon monoxide. Metal oxides. Nitrogen oxides.

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Eliminate every possible source of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective clothing. See "Material-Handling" to select protective clothing.

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth.

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Combustible. Keep away from ignition sources.

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Contaminated work clothing should not be allowed out of the workplace. Do not handle until all safety precautions have been read and understood. Do not spray on an open flame or other ignition source. Eliminate all ignition sources if safe to do so. Flammable vapours may accumulate in the container. Ground/bond container and receiving equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe dust/fume/gas/mist/vapours/spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation.

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible products : Oxidizing agent.

Storage temperature : < 50 °C

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents.

Storage area : Protect against frost. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : Keep only in the original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Gloves, shoulder length. Protective goggles. Protective clothing. Safety Boots. Insufficient ventilation: wear respiratory protection.

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Materials for protective clothing	: Good resistance: Polyvinylchloride (PVC)
Hand protection	: Nitrile rubber
Eye protection	: Protective goggles
Skin and body protection	: Protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: brown.
Odour	: Hydrocarbon.
Odour threshold	: No data available
pH	: 5 – 8
Relative evaporation rate (butylacetate=1)	: 0.003
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 180 °C
Flash point	: > 60 °C
Auto-ignition temperature	: > 200 °C
Decomposition temperature	: No data available
Flammability	: Not applicable
Vapour pressure	: 0.006 mm Hg
Relative vapour density at 20°C	: 5.59
Relative density	: No data available
Density	: 0.85 g/cm ³
Solubility	: Insoluble in water. Water: soluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: 3.2 cSt @ 40 C
Viscosity, dynamic	: ≤ 1050 cP @ 25 C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 0.6 vol % 7 g/m ³

9.2. Other information

Other properties : Clear. Substance has acid reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with (strong) oxidizers.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from heat and direct sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from ignition sources (including static discharges).

10.5. Incompatible materials

Oxidizing agent.

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10.6. Hazardous decomposition products

carbon oxides (CO and CO₂). Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

SATACEN 3	
LD50 oral rat	

FERROCENE (102-54-5)	
LD50 oral rat	1320 mg/kg
LD50 dermal rabbit	> 3000 mg/kg

HEAVY AROMATIC NAPHTHA 100 (64742-94-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 Inhalation - Rat	> 2 (≥ 20)

HYDROCARBONS , C11-C13,ISOALKANES, < 2% AROMATICS (90622-58-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 Inhalation - Rat [ppm]	> 5000 ppm

NAPHTHALENE (91-20-3)	
LD50 oral rat	490 mg/kg
LD50 dermal rat	20000 mg/kg
LC50 Inhalation - Rat	> 0.4 mg/l/4h

Skin corrosion/irritation : Not classified
pH: 5 – 8

Additional information : Prolonged or repeated contact with the skin may cause dermatitis
Repeated exposure may cause skin dryness or cracking.

Serious eye damage/irritation : Not classified
pH: 5 – 8

Respiratory or skin sensitisation : May cause respiratory irritation.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : May cause birth defects. May impair fertility.

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : May be fatal if swallowed and enters airways.

SATACEN 3	
Viscosity, kinematic	3.2 mm ² /s @ 40 C

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

SATACEN 3	
LC50 - Fish [1]	0.1 – 1 mg/l

FERROCENE (102-54-5)	
LC50 - Fish [1]	12.3
EC50 - Crustacea [1]	1.17 mg/l
EC50 72h - Algae [1]	1.03 mg/l

HEAVY AROMATIC NAPHTHA 100 (64742-94-5)	
LC50 - Fish [1]	1 – 10 mg/l
EC50 - Crustacea [1]	1 – 10 mg/l
EC50 72h - Algae [1]	1 – 10 mg/l

HYDROCARBONS , C11-C13,ISOALKANES, < 2% AROMATICS (90622-58-5)	
LC50 - Fish [1]	> 1000 mg/l
EC50 - Crustacea [1]	> 1000 mg/l
EC50 72h - Algae [1]	> 1000 mg/l

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NAPHTHALENE (91-20-3)	
LC50 - Fish [1]	7.9 mg/l (fATHEAD MINNOW)
EC50 - Crustacea [1]	2.16 mg/l

12.2. Persistence and degradability

SATACEN 3	
Persistence and degradability	Inherently biodegradable.
FERROCENE (102-54-5)	
Biodegradation	73 %
HEAVY AROMATIC NAPHTHA 100 (64742-94-5)	
Persistence and degradability	Readily biodegradable in water.
ORGANOMETALLIC IRON COMPOUND (Proprietary)	
Biodegradation	73 %

12.3. Bioaccumulative potential

FERROCENE (102-54-5)	
Partition coefficient n-octanol/water (Log Pow)	2.66
HEAVY AROMATIC NAPHTHA 100 (64742-94-5)	
Bioaccumulative potential	Bioaccumable.
NAPHTHALENE (91-20-3)	
BCF - Fish [1]	427 – 1158 mg/l
Partition coefficient n-octanol/water (Log Pow)	3.4 @ 25 c
ORGANOMETALLIC IRON COMPOUND (Proprietary)	
Partition coefficient n-octanol/water (Log Pow)	2.66

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Specific preliminary treatment. Remove to an authorized incinerator with energy recovery. Do not discharge into drains or the environment.
Additional information	: Hazardous waste according to Directive 2008/98/EC.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: Not applicable
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IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Not listed on REACH Annex XVII

Not listed on the REACH Candidate List

Not listed on REACH Annex XIV (Authorisation List)

15.1.2. National regulations

Germany

Regulatory reference : WGK 2, Significantly hazardous to water

WGK remark : Classification water polluting based on the R-phrases in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 3)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

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Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

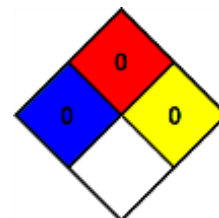
No chemical safety assessment has been carried out

SECTION 16: Other information

NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Full text of H- and EUH-statements:

Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

SDS ImproChem Test

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