

**CONOSTAN High Sulfur in Isooctane, set**

Revision date: 11/28/2024

Product code: AC18.10197

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**1. Identification**
**Product identifier**

CONOSTAN High Sulfur in Isooctane, set

**Recommended use of the chemical and restrictions on use**
**Use of the substance/mixture**

 Reagents and laboratory chemicals  
 Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**Details of the supplier of the safety data sheet**
**Details of the supplier of the safety data sheet**

Company name:	AnalytiChem Services, Unipessoal, Lda
Street:	Rua de Júlio Dinis 676 7º
Place:	P-4050-320 Porto
Telephone:	+351 226002917
E-mail:	info@analytichem.com
Contact person:	SDS service department
E-mail:	SDS@analytichem.com
Internet:	www.analytichem.com
Responsible Department:	SDS service department

**Supplier or manufacturer details**

Company name:	AnalytiChem Canada Inc.	
	Québec, CANADA	
Street:	21800 Clark Graham Ave	
Place:	CDN-H9X 4B6 Baie-D'Urfé	
Telephone:	+1 (800) 361-6820	Telefax: +1 (800) 253-5549
E-mail:	info@analytichem.com	
Contact person:	SDS service department	
E-mail:	SDS@analytichem.com	
Internet:	www.analytichem.com	
Responsible Department:	AnalytiChem:	
	EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20	
	EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200	
	EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848	
	UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500	
	USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378	
	Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701	
	Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333	
<b>Emergency phone number:</b>	+1 703-741-5970 (CHEMTREC)	

**Further Information**

No data available

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**2. Hazard(s) identification**

**Classification of the chemical**

**Regulation (EC) No 1272/2008**

- Flam. Liq. 2; H225
- Skin Irrit. 2; H315
- STOT SE 3; H336
- Asp. Tox. 1; H304
- Aquatic Acute 1; H400
- Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

**Label elements**

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

2,2,4-trimethylpentane

**Signal word:** Danger

**Pictograms:**



**Hazard statements**

- H225 Highly flammable liquid and vapor
- H304 May be fatal if swallowed and enters airways
- H315 Causes skin irritation
- H336 May cause drowsiness or dizziness
- H410 Very toxic to aquatic life with long lasting effects

**Precautionary statements**

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P273 Avoid release to the environment.
- P301+P310 If swallowed: Immediately call a poison center/doctor.
- P331 Do NOT induce vomiting.
- P391 Collect spillage.
- P403+P235 Store in a well-ventilated place. Keep cool.

**Hazards not otherwise classified**

No data available

**3. Composition/information on ingredients**

**Mixtures**

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**Relevant ingredients**

CAS No	Components			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
540-84-1	2,2,4-trimethylpentane			95 - < 100 %
	208-759-1	601-009-00-8	01-2119457965-22	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H225 H315 H336 H304 H400 H410			

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Components	Quantity
	Specific Conc. Limits, M-factors and ATE		
540-84-1	208-759-1	2,2,4-trimethylpentane	95 - < 100 %
	inhalation: LC50 = > 33,52 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		

**Further Information**

No data available

**4. First-aid measures**
**Description of first aid measures**
**General information**

Remove contaminated, saturated clothing immediately.

**After inhalation**

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

In case of skin irritation, consult a physician.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

Remove contact lenses, if present and easy to do. Continue rinsing.

In case of eye irritation consult an ophthalmologist.

**After ingestion**

Rinse mouth.

Do NOT induce vomiting.

Observe risk of aspiration if vomiting occurs.

Call a physician immediately.

**Most important symptoms and effects, both acute and delayed**

Irritant

Vapors may cause drowsiness and dizziness.

Narcotic effects

Pulmonary oedema

Repeated exposure may cause skin dryness or cracking.

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

**Indication of any immediate medical attention and special treatment needed**

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No data available

**5. Fire-fighting measures**

**Extinguishing media**

**Suitable extinguishing media**

- Carbon dioxide (CO2)
- Foam
- Extinguishing powder
- Water spray jet

**Unsuitable extinguishing media**

- High power water jet.

**Specific hazards arising from the chemical**

- Combustible liquids
- Hazardous combustion products
- In case of fire may be liberated:
- Carbon dioxide (CO2)
- Carbon monoxide
- Sulphur oxides
- Vapors are heavier than air, spread along floors and form explosive mixtures with air.
- Heating causes rise in pressure with risk of bursting.
- Beware of reignition.

**Special protective equipment and precautions for fire-fighters**

- In case of fire: Wear self-contained breathing apparatus.
- In case of fire and/or explosion do not breathe fumes.

**Additional information**

- Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
- Move undamaged containers from immediate hazard area if it can be done safely.
- Use water spray jet to protect personnel and to cool endangered containers.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

**General advice**

- Keep away from sources of ignition - No smoking.
- This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).
- Take precautionary measures against static discharge.

**For non-emergency personnel**

- Provide adequate ventilation.
- Use personal protection equipment.
- Avoid contact with skin, eyes and clothes.
- Remove persons to safety.
- Emergency procedures
- Consult an expert
- Do not breathe dust/fume/gas/mist/vapors/spray.

**For emergency responders**

- Precautionary statements For emergency responders : Personal protection equipment (PPE): see section 8

**Environmental precautions**

- Do not allow to enter into surface water or drains.
- The vapors are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels

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and cellars.

Danger of explosion

**Methods and material for containment and cleaning up**

**For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Collect in closed and suitable containers for disposal.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear breathing apparatus if exposed to vapors/dusts/aerosols.

**Reference to other sections**

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

**7. Handling and storage**

**Precautions for safe handling**

**Advice on safe handling**

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

Use personal protection equipment. Use extractor hood (laboratory).

Provide adequate ventilation. Do not breathe vapor.

**Advice on protection against fire and explosion**

Take precautionary measures against static discharge. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of the protective agents should be clarified with their suppliers.

**Further information on handling**

Take off immediately all contaminated clothing and wash it before reuse.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep in a cool, well-ventilated place.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Hints on joint storage**

National regulations

**Further information on storage conditions**

Keep container tightly closed and dry.

Keep cool. Protect from sunlight.

**Specific end use(s)**

Laboratory chemicals

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Only for laboratory and analysis purposes.

**8. Exposure controls/personal protection**
**Control parameters**
**Exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	Category	Origin
-	Octane: all isomers	300	1401	TWA (8 h)	ACGIH-2025

**DNEL/DMEL values**

CAS No	Substance	DNEL type	Exposure route	Effect	Value
540-84-1	2,2,4-trimethylpentane				
		Worker DNEL, long-term	inhalation	systemic	2035 mg/m <sup>3</sup>
		Worker DNEL, long-term	dermal	systemic	773 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	608 mg/m <sup>3</sup>
		Consumer DNEL, long-term	dermal	systemic	699 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	699 mg/kg bw/day

**Exposure controls**
**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**
**Eye/face protection**

goggles

Face protection umbrella

**Hand protection**

Tested protective gloves must be worn

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Take off immediately all contaminated clothing and wash it before reuse.

Wear fire resistant or flame retardant clothing.

Wash hands and face before breaks and after work and take a shower if necessary.

Draw up and observe skin protection programme.

**Respiratory protection**

Wear breathing apparatus if exposed to vapors/dusts/aerosols.

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. A respiratory protection program that meets OSHA's 29 CFR 1910.134 requirements must be followed whenever workplace conditions warrant a respirator's use.

**Thermal hazards**

No data available

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

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Due to danger of explosion, prevent leakage of vapors into cellars, flues and ditches.

Danger of explosion

**9. Physical and chemical properties**

**Information on basic physical and chemical properties**

Physical state:	Liquid
Color:	colorless
Odor:	like: Gasoline
Odour threshold:	No data available
Melting point/freezing point:	-107 (-161 °F) °C
Boiling point or initial boiling point and boiling range:	99 (210 °F) °C
Flammability:	No data available
Lower explosion limits:	1 vol. %
Upper explosion limits:	6 vol. %
Flash point:	-12 (10 °F) °C
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	No data available
Viscosity / kinematic:	No data available
Water solubility:	No data available
Solubility in other solvents	No data available
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapor pressure:	55 (70 °F) hPa
(at 21 °C)	
Vapor pressure:	120 (100.04 °F) hPa
(at 37.8 °C)	
Density:	No data available
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

**Other information**

**Information with regard to physical hazard classes**

**Explosive properties**

Vapors are heavier than air, spread along floors and form explosive mixtures with air.

Sustained combustibility: Sustained combustibility

**Self-ignition temperature**

Solid: No data available

Gas: No data available

**Oxidizing properties**

No data available

**Other safety characteristics**

Evaporation rate: No data available

Solvent separation test: No data available

Solvent content: 100%

Solid content: 0%

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Sublimation point: No data available  
 Softening point: No data available  
 Pour point: No data available  
 Viscosity / dynamic: No data available  
 Flow time: No data available

**Further Information**

No data available

**10. Stability and reactivity**

**Reactivity**

Vapours may form explosive mixtures with air.

**Chemical stability**

The product is stable under storage at normal ambient temperatures.

**Possibility of hazardous reactions**

Oxidising agent

**Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Incompatible materials**

Plastic articles

**Hazardous decomposition products**

in case of fire, see:  
 SECTION 5: Fire fighting measures

**Further information**

No data available

**11. Toxicological information**

**Information on toxicological effects**

**Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

Based on available data, the classification criteria are not met.

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
540-84-1	2,2,4-trimethylpentane				
	oral	LD50 > 5000 mg/kg	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Study report (1982)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 > 33,52 mg/l	Rat	Study report (1982)	OECD Guideline 403

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**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation  
 Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.  
 Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

**Sensitizing effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.  
 Carcinogenicity: Based on available data, the classification criteria are not met.  
 Reproductive toxicity: Based on available data, the classification criteria are not met.

**Specific target organ toxicity (STOT) - single exposure**

May cause drowsiness or dizziness (2,2,4-trimethylpentane)  
 Organs affected: central nervous system

**Specific target organ toxicity (STOT) - repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

May be fatal if swallowed and enters airways

**Route(s) of Entry**

There are no data available on the mixture itself.

**Specific effects in experiment on an animal**

There are no data available on the mixture itself.

**Additional information on tests**

There are no data available on the mixture itself.

**Practical experience**

There are no data available on the mixture itself.

**Information on other hazards**

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**Other information**

There are no data available on the mixture itself.

**Further information**

Irritant  
 Vapors may cause drowsiness and dizziness.  
 Narcotic effects  
 Pulmonary oedema  
 Repeated exposure may cause skin dryness or cracking.  
 Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

**12. Ecological information**

**Ecotoxicity**

Very toxic to aquatic life  
 Very toxic to aquatic life with long lasting effects

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CAS No	Components					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
540-84-1	2,2,4-trimethylpentane					
	Acute fish toxicity	LC50 0,11 mg/l	96 h	Oncorhynchus mykiss	SIDS Initial Assessment Report For SIAM	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l 2,943	72 h	Pseudokirchneriella subcapitata	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a
	Acute crustacea toxicity	EC50 0,4 mg/l	48 h	Daphnia magna	Publication (1986)	other: As described in: The evaluation o
	Fish toxicity	NOEC mg/l 0,82	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a
	Crustacea toxicity	NOEC 1 mg/l	21 d	Daphnia magna	SIDS Initial Assessment Report For SIAM	OECD Guideline 211

**Persistence and degradability**

There are no data available on the mixture itself.

**Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Components	Log Pow
540-84-1	2,2,4-trimethylpentane	4,08

**BCF**

CAS No	Components	BCF	Species	Source
540-84-1	2,2,4-trimethylpentane	231	calculated	Other company data (

**Mobility in soil**

There are no data available on the mixture itself.

**Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**Other adverse effects**

Do not allow to enter into surface water or drains.

Avoid release to the environment.

**Further information**

No data available

**13. Disposal considerations**
**Waste treatment methods**
**Disposal recommendations**

Send to a physico-chemical treatment facility under observation of official regulations .

Do not allow to enter into surface water or drains.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

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**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

**14. Transport information**

**Land transport (ADR/RID)**

**UN number or ID number:** UN 1262  
**UN proper shipping name:** OCTANES  
**Transport hazard class(es):** 3  
**Packing group:** II  
Hazard label: 3  
Classification Code: F1  
Limited quantity: 1 L  
Excepted quantity: E2  
Transport category: 2  
Hazard No: 33  
Tunnel restriction code: D/E

**Inland waterways transport (ADN)**

**UN number or ID number:** UN 1262  
**UN proper shipping name:** OCTANES  
**Transport hazard class(es):** 3  
**Packing group:** II  
Hazard label: 3  
Classification Code: F1  
Limited quantity: 1 L  
Excepted quantity: E2

**Marine transport (IMDG)**

**UN number or ID number:** UN 1262  
**UN proper shipping name:** OCTANES  
**Transport hazard class(es):** 3  
**Packing group:** II  
Hazard label: 3  
Marine pollutant: P  
Special Provisions: -  
Limited quantity: 1 L  
Excepted quantity: E2  
EmS: F-E, S-E

**Air transport (ICAO-TI/IATA-DGR)**

**UN number or ID number:** UN 1262  
**UN proper shipping name:** OCTANES  
**Transport hazard class(es):** 3  
**Packing group:** II  
Hazard label: 3  
Limited quantity Passenger: 1 L  
Passenger LQ: Y341  
Excepted quantity: E2  
IATA-packing instructions - Passenger: 353  
IATA-max. quantity - Passenger: 5 L  
IATA-packing instructions - Cargo: 364  
IATA-max. quantity - Cargo: 60 L

**Environmental hazards**

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ENVIRONMENTALLY HAZARDOUS: Yes  
 Danger releasing substance: octane

**15. Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): E1 Hazardous to the Aquatic Environment

Additional information:

P5c

**National regulatory information**

**16. Other information**

**Abbreviations and acronyms**

- Flam. Liq. 2: Flammable liquids
- Asp. Tox. 1: Aspiration hazard
- Skin Irrit. 2: Skin irritation
- STOT SE 3: Specific target organ toxicity single exposure
- Aquatic Acute 1: Acute aquatic hazard
- Aquatic Chronic 1: Chronic aquatic hazard

**Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008**

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
STOT SE 3; H336	Calculation method
Asp. Tox. 1; H304	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

**Relevant H statements (full text)**

- H225 Highly flammable liquid and vapor
- H304 May be fatal if swallowed and enters airways
- H315 Causes skin irritation
- H336 May cause drowsiness or dizziness
- H400 Very toxic to aquatic life
- H410 Very toxic to aquatic life with long lasting effects

**Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. Provide appropriate information, instructions and training to users.

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*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*