



ENOC STRATA MSDO 450

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 17/10/2016 Revision date: 17/10/2016 Version: 1.0

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

1.1. Product identifier

Product form : Mixtures
Product name : ENOC STRATA MSDO 450
Product code : 252029

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 : Lubricant for heavy-fuel diesel engine

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ENOC Marketing L.L.C
ENOC House I
Dubai - United Arab Emirates
T +971 4 313 4613 - F +971 4 313 4616

1.4. Emergency telephone number

Emergency number : +97143374400
(business hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Sensitisation — Skin, Category 1 H317

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning
Hazard statements (CLP) : H317 - May cause an allergic skin reaction
Precautionary statements (CLP) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 - IF ON SKIN: Wash with plenty of water
P321 - Specific treatment (see supplemental first aid instruction on this label)
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Residual oils (petroleum), hydrotreated, Baseoil - unspecified, [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly greater than C25 and boiling above approximately 400 °C (752 °F).]	(CAS No) 64742-57-0 (EC no) 265-160-8 (EC index no) 649-470-00-4 (REACH-no) 01-2119489287-22 01-2119480472-38-0013; 01-2119480472-38	48	Not classified (Note L)
-Distillates (petroleum), hydrotreated heavy paraffinic	(CAS No) 64742-54-7 (EC no) 265-157-1 (EC index no) 649-467-00-8 (REACH-no) 01-2119484627-25	33.5	Not classified (Note L)
Benzoic acid, hydroxyl-mono-C20-28-branched alkyl derivatives, calcium salts (2:1)	(CAS No) 900185-23-1 (REACH-no) exempt	4	Skin Sens. 1, H317 Aquatic Chronic 4, H413
Phenol, C18-30-alkyl derivatives, calcium salts	(CAS No) 851232-34-3 (REACH-no) not available	0.7	Skin Irrit. 2, H315 Aquatic Chronic 4, H413
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S'], (T-4)-	(CAS No) 4259-15-8 (EC no) 224-235-5 (REACH-no) 01-2119493635-27	0.7	Eye Dam. 1, H318 Aquatic Chronic 2, H411
Phenol, C18-30-alkyl derivatives	(CAS No) 68784-24-7 (EC no) 272-232-2 (REACH-no) not available	0.5	Skin Irrit. 2, H315 Aquatic Chronic 4, H413
Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivatives	(CAS No) 84605-20-9 (EC no) 617-593-2 (REACH-no) not available	0.3	Aquatic Chronic 4, H413

Note L : The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Wash off immediately with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately and plentifully with water, also under the eyelids, for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately get medical attention.

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

Symptoms/injuries after inhalation	: May cause irritation to the respiratory tract. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. May cause skin irritation / dermatitis.
Symptoms/injuries after eye contact	: May cause eye irritation.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: carbon dioxide (CO2), water, dry chemical powder.
Unsuitable extinguishing media	: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: None known.
Explosion hazard	: None known.
Hazardous decomposition products in case of fire	: Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide.

5.3. Advice for firefighters

Firefighting instructions	: Cool down the containers exposed to heat with a water spray.
Protective equipment for firefighters	: Wear proper protective equipment. In case of fire: Wear self-contained breathing apparatus.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear personal protection equipment.
Emergency procedures : Evacuate area. Avoid contact with skin, eyes and clothes.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing. In case of fire: Wear self-contained breathing apparatus.
Emergency procedures : Evacuate and limit access. Stop leak if safe to do so. Use ventilation/water spray/fog to disperse vapours. Do not touch spilled material.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Clean up any spills as soon as possible, using an absorbent material to collect it. For larger spills, dike area and pump into waste containers.
Methods for cleaning up : Collect all waste in suitable and labelled containers and dispose according to local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handling this product may result in electrostatic accumulation. Use proper grounding procedures.
Precautions for safe handling : Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours. Avoid static electricity discharges. Provide earthing of containers, equipment, pumps and ventilation facilities.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice. Take off contaminated clothes. Wash contaminated clothing prior to re-use.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place.
Special rules on packaging : Keep only in 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:

Either local exhaust or general room ventilation is usually required.

Personal protective equipment:

Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.

Materials for protective clothing:

Wear suitable protective clothing. Natural fibres (e.g. cotton)

Hand protection:

Wear suitable gloves tested to EN374. Thickness of glove material: > 0.13 mm. Break through time: ≥ 480 min

Eye protection:

Use splash goggles when eye contact due to splashing is possible. DIN EN 166

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Wear a respirator conforming to EN140 with Type A/P2 filter or better

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: brown.
Odour	: Characteristics.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 254 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 914.6 kg/m ³ @ 15°C
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: 15 mm ² /s @ 100°C
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive. However, formation of explosive air/vapour mixtures are possible.
Oxidising properties	: not oxidizing.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None known under normal conditions of use. No polymerization.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified

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Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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Viscosity, kinematic	15 mm²/s @ 100°C
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SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

-Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Persistence and degradability	Inherently biodegradable.
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Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivatives (84605-20-9)

Persistence and degradability	May cause long-term adverse effects in the environment.
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12.3. Bioaccumulative potential

-Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Bioaccumulative potential	Bioaccumulative potential.
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Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)- (4259-15-8)

Log Pow	2.86 (at 20 °C)
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Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivatives (84605-20-9)

Bioaccumulative potential	No data available.
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12.4. Mobility in soil

Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivatives (84605-20-9)

Ecology - soil	No available data.
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12.5. Results of PBT and vPvB assessment

Component

-Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Waste disposal according to EC directives 75/442/EEC and 91/689/EEC in the corresponding versions, covering waste and dangerous waste.
Waste treatment methods	: Can be incinerated according to local regulations.
Waste disposal recommendations	: Dispose of this material and its container to hazardous or special waste collection point.
European List of Waste (LoW) code	: 13 02 05* - mineral-based non-chlorinated engine, gear and lubricating oils

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

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ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Not regulated

- Transport by sea

Not regulated

- Air transport

Not regulated

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Other information, restriction and prohibition regulations

: International regulatory information:

AICS. Australia. Inventory of Chemical Substances (as amended through 1 September 2015)

CAS RN: 64742-57-0

Name: Residual oils, petroleum, hydrotreated

Note(s): aU

Notes: aU This entry is a chemical of unknown or variable composition, a complex product of a chemical reaction, or a biological material (UVCB); the Australian inventory denotes this by putting an asterisk (*) after the CAS number.

DSL. Canada. Domestic Substances List, as amended through September 23, 2015

CAS RN: 64742-57-0

Name: Residual oils, petroleum, hydrotreated

Canada. Categorization of Existing Substances on DSL (September 2006)

CAS RN: 64742-57-0 may be regulated as a member of the Generics group for CAS RN: 8012-95-1

Generics group name: PARAFFIN OILS

Substance category: UORG

Meets CEPA criteria: Yes

Meets human health criteria: Yes

Human health priority: Moderate

Meets environmental criteria: No

Persistent: No

Bioaccumulative: No

Inherently toxic to aquatic organisms: No

ENCS. Japan. Inventory of Existing & New Chemical Substances, as amended through July 30, 2015

CAS RN: 64742-57-0

Name: Residual oils (petroleum), hydrotreated (en-US)

Japanese ENCS Number: (9)-1689

Japan. Industrial Safety & Health Law (ISHL) Inventory, as amended through June 26, 2015

CAS RN: 64742-57-0

Name: Residual oils (petroleum), hydrotreated (en-US)

Japanese ENCS Number: (9)-1689

Japanese ISHL Number: (9)-1689

Notes iencs: Grandfathered onto ISHL from ENCS according to the Chemical Substance Control Law.

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KECI. Korea Existing Chemicals Inventory (January 27, 2015, amended through MoE 2015-95, July 1, 2015)

CAS RN: 64742-57-0

Name: Residual oils (petroleum), hydrotreated

Korean ID Number: KE-30119

PICCS. Philippines. Inventory of Chemicals and Chemical Substances (PICCS) 2012

CAS RN: 64742-57-0

Name: Residual oils (petroleum), hydrotreated

U.S. Federal, TSCA. IUR 2006, Partially Exempt Petroleum Process Streams (40 CFR 710.46(b)(1))

CAS RN: 64742-57-0

Name: RESIDUAL OILS (PETROLEUM), HYDROTREATED

CAS RN: 64742-57-0 may be regulated as a member of the Generics group for CAS

RN: 8012-95-1

Generics group name: PARAFFIN OILS

TSCA CDR, Partially Exempt Petroleum Process Streams (40 CFR 711.6(b)(1)) (September 6, 2011)

CAS RN: 64742-57-0 may be regulated as a member of the Generics group for CAS

RN: 8012-95-1

Generics group name: Paraffin oils

CAS RN: 64742-57-0 Name: Residual oils (petroleum), hydrotreated

TSCA High Production Volume (HPV) Chemicals: 1990, 1994 & Post-1994 Additions (01/20/06)

CAS RN: 64742-57-0 Name: RESIDUAL OILS, PETROLEUM, HYDROTREATED

1990 HPV Challenge Program Chemical

HPV Indicator Value (see notes): 0

HPV Sponsorship Value (see notes): F

Notes: 0 Chemical is a candidate for sponsorship under the HPV Challenge Program. F Fully Sponsored Chemical

. International regulatory information:

AICS: Australia. Inventory of Chemical Substances (AICS) (as amended through 1 September 2015)

CAS RN: 64742-54-7

Name: Distillates, petroleum, hydrotreated heavy paraffinic

Note(s): aU -This entry is a chemical of unknown or variable composition, a complex product of a chemical reaction, or a biological material (UVCB); the Australian inventory denotes this by putting an asterisk (*) after the CAS number.

DSL: Canada. Domestic Substances List (DSL), as amended through September 23, 2015

CAS RN: 64742-54-7

Name: Distillates, petroleum, hydrotreated heavy paraffinic

Canada. Categorization of Existing Substances on DSL (September 2006)

CAS RN: 64742-54-7

Name: DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC

Substance category: UORG

Meets CEPA criteria: Yes

Meets human health criteria: Yes

Human health priority: High

Meets environmental criteria: No

Persistent: Yes

Bioaccumulative: No

Inherently toxic to aquatic organisms: No

Notes: UVCBs-organic

ENCS: not listed

KECI: Korea. Existing Chemicals Inventory (KECI, January 27, 2015, amended through MoE 2015-95, July 1, 2015)

CAS RN: 64742-54-7

Name: Distillates (petroleum), hydrotreated heavy paraffinic

Korean ID Number: KE-12546

PICCS: Philippines. Inventory of Chemicals and Chemical Substances (PICCS) 2012

CAS RN: 64742-54-7

Name: Distillates (petroleum), hydrotreated heavy paraffinic

TSCA: U.S. Federal, TSCA

TSCA IUR 2006, Partially Exempt Petroleum Process Streams (40 CFR 710.46(b)(1))

CAS RN: 64742-54-7

Name: DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC

TSCA CDR, Partially Exempt Petroleum Process Streams (40 CFR 711.6(b)(1)) (September 6, 2011)

CAS RN: 64742-54-7

Name: Distillates (petroleum), hydrotreated heavy paraffinic

TSCA High Production Volume (HPV) Chemicals: 1990, 1994 & Post-1994 Additions (01/20/06)

CAS RN: 64742-54-7

Name: DISTILLATES, PETROLEUM, HYDROTREATED HEAVY PARAFFINIC

1990 HPV Challenge Program Chemical

HPV Indicator Value (see notes): 0 Chemical is a candidate for sponsorship under

the HPV Challenge Program

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HPV Sponsorship Value (see notes): F Fully Sponsored Chemical.

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : -Distillates (petroleum), hydrotreated heavy paraffinic, Residual oils (petroleum), hydrotreated, Baseoil - unspecified, [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly greater than C25 and boiling above approximately 400 °C (752 °F).], Phenol, C18-30-alkyl derivatives are listed

SZW-lijst van mutagene stoffen : -Distillates (petroleum), hydrotreated heavy paraffinic, Residual oils (petroleum), hydrotreated, Baseoil - unspecified, [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly greater than C25 and boiling above approximately 400 °C (752 °F).], Phenol, C18-30-alkyl derivatives are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use 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

A chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Other information : It is the user's responsibility to take mentioned precaution measures and ensure that this information is complete and sufficient for the use of this product. Such information is actually to be best of our knowledge and believes accurate as reliable.

Full text of H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Carc. 1B	Carcinogenicity, Category 1B
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H350	May cause cancer
H411	Toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Sens. 1	H317	
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SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product