



E2SE HC591

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
SDS Ref.: HC591
Date of issue: 21/03/2017 Revision date: 01/03/2017 Supersedes: 20/05/2016 Version: 3.0

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

1.1. Product identifier

Product form : Mixture
Product name : E2SE HC591
Product code : HC591
Product group : Blend

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Industrial/Professional use spec : Industrial
For professional use only
Function or use category : Demulsifier

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Europe Séparation & Services pour L'Environnement
Zone de L'Oison II - 645
Avenue du Dué
76320 St. Pierre les Elbeuf
T +33 (0) 235 37 21 71 - F +33 (0) 172 70 37 48
commercial@e2se.com - www.e2se.com

1.4. Emergency telephone number

Emergency number : +33 (0) 235 37 21 71

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU 2015: According to Regulation (EU) 2015/830 (REACH Annex II)

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 1B	H314
Carcinogenicity, Category 2	H351
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

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)



GHS05

GHS07

GHS08

GHS09

Signal word (CLP)

: Danger

Hazardous ingredients

: Dodecylbenzenesulfonic acid

Hazard statements (CLP)

: H302 - Harmful if swallowed.
H304 - May be fatal if swallowed and enters airways.
H314 - Causes severe skin burns and eye damage.
H351 - Suspected of causing cancer.
H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP) : P260 - Do not breathe spray, vapours, fume.
P280 - Wear eye protection, protective clothing, protective gloves.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 - Get medical advice/attention if you feel unwell.
P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards

Other hazards not contributing to the classification : Corrosive to the respiratory tract.

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PBT: not relevant – no registration required

vPvB: not relevant – no registration required

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C10, aromatics, >1% naphthalene	(CAS-No.) Not assigned (EC-No.) 919-284-0 (REACH-no) 01-2119463588-24	25 - 60	Carc. 2, H351 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Dodecylbenzenesulfonic acid	(CAS-No.) 85536-14-7 (EC-No.) 287-494-3 (REACH-no) 01-2119490234-40	25 - 50	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314
Naphthalene (Constituent)	(CAS-No.) 91-20-3 (EC-No.) 202-049-5 (EC Index-No.) 601-052-00-2 (REACH-no) 01-2119561346-37	<= 3	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Comments : The substances identified as "constituents" are chemical compounds that are typically present in the UVCB substance. Their presence may be relevant for hazard classification, or other health / environmental reasons (i.e. OELs)

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Suspected of causing cancer.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	: Cough. Danger of serious damage to health by prolonged exposure through inhalation. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. May be fatal if swallowed and enters airways.
Chronic symptoms	: May cause delayed painful eye irritation and tearing.

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

Obtain medical assistance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapour.
Explosion hazard	: May form flammable/explosive vapour-air mixture.
Reactivity in case of fire	: Thermal decomposition generates : Corrosive vapours.

5.3. Advice for firefighters

Precautionary measures fire	: Use self-contained breathing apparatus when in close proximity to fire.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

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Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Do not breathe fume, Gas, Vapours. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed.

Incompatible products : Strong bases.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

Maximum storage period : 2 year Working properties

Storage temperature : 10 - 40 °C

Storage area : Store in a well-ventilated place.

Special rules on packaging : Store in a closed container.

Packaging materials : Do not store in corrodable metal.

7.3. Specific end use(s)

Demulsifier.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Dodecylbenzenesulfonic acid (85536-14-7)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	170 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	12 mg/m ³
Long-term - local effects, inhalation	12 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	0,85 mg/kg bodyweight/day
Long-term - systemic effects, dermal	85 mg/kg bodyweight/day
Long-term - local effects, inhalation	3 mg/m ³

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Dodecylbenzenesulfonic acid (85536-14-7)

PNEC (Water)

PNEC aqua (freshwater)	0,287 mg/l
PNEC aqua (marine water)	0,0287 mg/l
PNEC aqua (intermittent, freshwater)	0,0167 mg/l

PNEC (Soil)

PNEC soil	35 mg/kg dwt
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Hydrocarbons, C10, aromatics, >1% naphthalene (Not assigned)

DNEL/DMEL (Workers)

Acute - systemic effects, dermal	12,5 mg/kg bodyweight/day
Acute - systemic effects, inhalation	151 mg/m ³

DNEL/DMEL (General population)

Acute - systemic effects, dermal	7,5 mg/kg bodyweight
Acute - systemic effects, inhalation	32 mg/m ³
Acute - systemic effects, oral	7,5 mg/kg bodyweight

8.2. Exposure controls

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or face shield

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Reddish brown.
Odour	: Pungent.
Odour threshold	: No data available
pH	: No data available
pH solution	: 5 (1,5 - 2,5) %
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: <= -10 °C (Pour Point)
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 87 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 960 - 1000 kg/m ³
Solubility	: In water, the material disperses.

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Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: < 500 mPa.s at 20 deg C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 1 - 8 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours. Carbon monoxide. Carbon dioxide.

10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases. Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Oral: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Dodecylbenzenesulfonic acid (85536-14-7)

LD50 oral rat	OESO 401 200 - 2000 mg/kg
LD50 dermal rabbit	OESO 404 Corrosive

Hydrocarbons, C10, aromatics, >1% naphthalene (Not assigned)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 4688 mg/m ³

Naphthalene (91-20-3)

LD50 oral	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (ppm)	> 100 ppm 8 hours

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Serious eye damage, category 1, implicit
Additional information	: Causes severe skin burns and eye damage.
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met

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Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential adverse human health effects and symptoms	: Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	: Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

Dodecylbenzenesulfonic acid (85536-14-7)

LC50 fish 1	1 - 10 mg/l
EC50 Daphnia 1	48h. 1 - 40 mg/l
EC50 other aquatic organisms 1	72h . OECD 10 - 100 mg/l

Naphthalene (91-20-3)

LC50 fish 1	6,08 mg/l (fathead minnow; 96 hours)
LC50 other aquatic organisms 1	2,16 mg/l (water flea; 48 hours)
LC50 other aquatic organisms 2	0,4 mg/l (S. costatum; 96 hours)

12.2. Persistence and degradability

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Persistence and degradability	May cause long-term adverse effects in the environment.
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Dodecylbenzenesulfonic acid (85536-14-7)

Persistence and degradability	Readily biodegradable, according to appropriate OECD test.
Biodegradation	> 96 % 28 d

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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Dodecylbenzenesulfonic acid (85536-14-7)

Bioaccumulative potential	Not potentially bioaccumulable.
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Hydrocarbons, C10, aromatics, >1% naphthalene (Not assigned)

Bioaccumulative potential	Not established.
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Naphthalene (91-20-3)

Log Pow	3,3
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12.4. Mobility in soil

Dodecylbenzenesulfonic acid (85536-14-7)

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

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PBT: not relevant – no registration required
vPvB: not relevant – no registration required

Component

Hydrocarbons, C10, aromatics, >1% naphthalene (Not assigned)	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

Other adverse effects	: May cause pH changes in aqueous ecological systems.
Additional information	: Avoid release to the environment.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to Dispose in a safe manner in accordance with local/national regulations.
- Additional information : Handle empty containers with care because residual vapours are flammable.
- Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3265	3265	3265	3265	3265
14.2. UN proper shipping name				
CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Dodecylbenzenesulfonic acid(85536-14-7))	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Dodecylbenzenesulfonic acid(85536-14-7))	Corrosive liquid, acidic, organic, n.o.s. (Dodecylbenzenesulfonic acid(85536-14-7))	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Dodecylbenzenesulfonic acid(85536-14-7))	(Dodecylbenzenesulfonic acid(85536-14-7))
Transport document description				
UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Dodecylbenzenesulfonic acid(85536-14-7)), 8, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Dodecylbenzenesulfonic acid(85536-14-7)), 8, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3265 Corrosive liquid, acidic, organic, n.o.s. (Dodecylbenzenesulfonic acid(85536-14-7)), 8, III, ENVIRONMENTALLY HAZARDOUS	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Dodecylbenzenesulfonic acid(85536-14-7)), 8, III, ENVIRONMENTALLY HAZARDOUS	UN 3265 (Dodecylbenzenesulfonic acid(85536-14-7)), 8, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
III	III	III	III	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes

No supplementary information available

14.6. Special precautions for user

Overland transport

- Classification code (ADR) : C3
- Special provisions (ADR) : 274
- Limited quantities (ADR) : 5I
- Excepted quantities (ADR) : E1
- Vehicle for tank carriage : AT
- Transport category (ADR) : 3
- Hazard identification number (Kemler No.) : 80
- Orange plates :



Tunnel restriction code (ADR) : E

Transport by sea

- Special provisions (IMDG) : 223, 274

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Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP1, TP28
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: A
MFAG-No	: 153

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y841
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 852
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 856
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3
ERG code (IATA)	: 8L

Inland waterway transport

Classification code (ADN)	: C3
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

Rail transport

No data available

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
Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Revision - See: *.

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1

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Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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