

According to the Regulation No. 1907/2006

Page 1 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24

INA MARINE EURODIESEL BLUE Edition: 3

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

- Trade name: INA MARINE EURODIESEL, INA MARINE EURODIESEL BLUE

Chemical name: Fuels, diesel fuel
 Index no.: 649-224-00-6
 EC no.: 269-822-7
 CAS no.: 68334-30-5

- **Registration no.:** 01-2119484664-27-0114

- UFI: Not applicable.

- Form: -

- **Product code:** 1002640, 1002705

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

- Relevant identified uses: Industrial: Manufacture of Substances, Formulation & (Re)Packing of

substances, Use as a fuel **Professional:** Use as a fuel **Consumer:** Use as a fuel

- Uses advised against: The uses that are in the list above are relevant.

Other uses are not recommended unless an assessment that proves that the related risks are controlled has been conducted before starting that

use.

1.3. Details of the supplier of the safety data sheet

- Manufacturer/supplier: INA-Industrija nafte, d.d.

Address: Av. V. Holjevca 10

pp 555, 10002 Zagreb, HRVATSKA

Phone: 00-385-1-6450-842 / 00-385-1-6451-075 (24 h)

Fax: 00-385-1-6452-050

Sustainable Development and Health, Safety and Phone: 00-385-1-6450-803

Environment

- email address of a competent person responsible for sds@ina.hr

the safety data sheet:

1.4. Emergency Telephone Number

- Emergency Service Telephone Number: 112

Ministry of the Interior00-385-1-6192-929Directorate for civil protection00-385-1-4551-792Operative centre for civil protection00-385-1-4814-911

e-mail: occz@civilna-zastita.hr

- Medical Information Telephone Number: 00-385-1-23-48-342



According to the Regulation No. 1907/2006

Page 2 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 (CLP):

Flam. Liquid 3: H226 Asp. Tox. 1: H304 Skin Irrit. 2: H315 Acute Tox 4: H332 Carc.2: H351

STOT (RE): H373 (thymus, liver, bone marrow)

Aquatic Chronic 2: H411

Full text of H-phrases: see section 16.

2.2. Label elements

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

Hazard pictograms:



Signal word: Danger

Hazard statements (H):	H226	Flammable liquid and vapour.	
	H304	May be fatal if swallowed and enters airways.	
	H315	Causes skin irritation.	
	H332	Harmful if inhaled.	
	H351	Suspected of causing cancer.	
	H373	May cause damage to thymus, liver, bone marrow through prolonged or repeated exposure.	
	H411	Toxic to aquatic life with long lasting effects.	
Precautionary statements (P):	P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.	
	P260	Do not breathe dust/fume/gas/mist/vapours/spray.	
	P273	Avoid release to the environment.	
	P280	Wear protective gloves/protective clothing/eye protection/face protection.	
	P301+	IF SWALLOWED: Immediately call a POISON CENTER/doctor.	
	P310		
	P331	Do NOT induce vomiting.	



According to the Regulation No. 1907/2006

Page 3 of 28

Product	INA MARINE EURODIESEL	Date:	2024/04/24
	INA MARINE EURODIESEL BLUE	Edition:	3

2.3. Other hazards

No data available.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS							
-Substance:	Х						
- Components cor	ntributing to p	roduct hazar	dousness:				
Substance name	Substance identification			Classification according to		cation according to Regulation	
CAS no. EC no.		Registration no. (REACH)	· [%]	(EC) No 1272/2008 (CLP)			
Fuels, diesel	68334-30-5	269-822-7	01-2119484664-27- 0114	≤100	STOT Re	Flam. Liquid 3: H226 Asp. Tox. 1: H304 Skin Irrit. 2: H315 Acute Tox 4: H332 Carc.2: H351 ep.Exp.2: H373 (thymus, liver, bone marrow) Aquatic Chronic 2: H411	

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

- general information: In case of ingestion, always assume aspiration into the lungs has occurred,

accompanied by the pulmonary oedema hazard. Show the label on the

packaging or the SDS.

- after inhalation: Remove the person from dangerous area to fresh air.

In case of dizziness, nausea, headache, and permanent complaints

immediately seek medical attention.

In case of fainting transport in lateral position to hospital, paying attention to

the free passing of the air thorough the respiratory tract.

In case of difficulty in breathing or respiratory arrest, open airways, initiate resuscitation (heart massage and artificial respiration) and immediately seek

medical attention.

- after skin contact: Remove soaked clothes and shoes and flush the sites of contact thoroughly

with water and soap for at least 15 to 20 minutes. In case redness occurs seek

medical advice.

- after eye contact: Remove contact lenses and flush the eyes with running water for at least 15

minutes. In case of irritation, blurred vision and swelling immediately seek

medical attention.

- after ingestion: Do NOT induce vomiting! Do not give anything by mouth. Always assume

aspiration into the lungs has occurred. If vomiting occurs, keep the head below the level of hips in order to prevent penetration into the lungs.

Immediately seek medical attention.



According to the Regulation No. 1907/2006

Page 4 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

- personal protective equipment for first aid responder: No data available.

4.2 Most important symptoms and effects, both acute and delayed

- after inhalation: Longer inhalation of fumes can cause a sense of intoxication, headache,

nausea, vomiting.

- after skin contact: Redness, dermatitis.

- after eye contact: Irritating effect with possible occurrence of eye redness.

- after ingestion: May cause lung damage if swallowed. Danger of pulmonary oedema due to

aspiration in the lungs.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Only qualified medical personnel should administer oxygen.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

- SUITABLE: Air foam, powder, CO₂, water mist.

- UNSUITABLE: Water jet.

5.2 Special hazards arising from the substance or mixture:

- Hazardous combustion products: Incomplete combustion of hydrocarbons can

produce smoke containing CO, CO₂.

- Hydrocarbon vapours: Vapours are heavier than air and may settle to

ground level and in dents; they may spread away from the site of accident and cause explosion and

fire.

5.3 Advice for firefighters:

- Firefighting measures for special hazards: Eliminate all sources of ignition and call the fire

brigade. Pay special attention to risk of explosive vapour-air mixture formation at temperatures

above the flash point.

- Special firefighting methods: Use of water mist and water spray for cooling the

surfaces exposed to heat and for protection of persons. Only persons trained in firefighting may

use the water spray (sprayed water).

- Special protective equipment for firefighters: Self-contained open circuit compressed air

breathing apparatus in accordance with HRN EN 137. Wear protective clothing for firefighters (intervention suit) in accordance with HRN EN 469.

SECTION 6. ACCIDENTAL RELEASE MEASURES



According to the Regulation No. 1907/2006

Page 5 of 28

Product	INA MARINE EURODIESEL	Date:	2024/04/24
	INA MARINE EURODIESEL BLUE	Edition:	3

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment: Use personal protective equipment listed in section

8 and remove unprotected persons from the

affected area immediately.

- Accident prevention procedures: Ventilate thoroughly the premises at risk. Display a

visible sign prohibiting entrance, use of open flame

and sparking devices. Do not smoke.

- Procedure in case of accident: Stand upwind from the spill site. Prevent product

spread if this can be done in a safely manner. Identify the area of danger and prevent leaks and spills into watercourses, channels, drainage systems and soil by digging a protective ditch, setting up partitions made of bags of dry sand, soil or clay. Ensure good ventilation. In case of larger spills notify

the at the number 112.

6.1.2. For emergency responders: Insulate the spill area. Use personal protective

equipment listed in section 8 and remove unprotected persons from the affected area

immediately.

6.2 Environmental precautions: Prevent product spread if this can be done in a

safely manner. Insulate the spill area. Mark out the contaminated area with signs and prevent leaks and spills into watercourses, channels, drainage systems and soil by digging a protective ditch, setting up partitions made of bags of dry sand, soil, or clay.

6.3 Methods and material for containment and cleaning up

6.3.1. For bunding, covering and capping: Dig a protective ditch around the discharge area,

enclose with bags filled with dry sand, earth, or clay.

6.3.2. For cleaning up:

Pump the product from the damaged tank into an empty tank - container with the pump designed for

use in a potentially explosive atmosphere. Absorb the remainders with absorbents (sawdust, sand, mineral adsorbents, or other inert materials). Store the waste material and contaminated surface layer of soil that was removed in tightly closed containers in well-ventilated premises until disposal. Hand over for disposal to legal entities for hazardous waste disposal, authorized by the Ministry in charge of

environmental protection.

6.3.3. Other information: In case of traffic accident, properly ground the tank

truck, mark the accident area, and call the responsible person and the expert service in charge of taking care of the consequences of the accident.



According to the Regulation No. 1907/2006

Page 6 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

6.4 Reference to other sections: See sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Safe handling advice: Eliminate all possible sources of ignition. Decant only in areas properly

designed for the purpose according to regulations. Use functioning equipment and devices and follow technical safety measures in accordance with the training received. Take special care of connection points to prevent possible leaks. Follow occupational safety and fire

safety measures.

7.1.2 Advice on general occupational hygiene:

Do not smoke, eat, or drink in a room where this product is handled. Avoid inhalation and contact with skin and eyes. Use personal protective

equipment listed in Section 8.

7.2 Conditions for safe storage, including any incompatibilities

- SUITABLE: Properly built and equipped containers. Make sure that receiving tank farms are

below self-supporting tanks.

- TO BE AVOIDED: Avoid storing with other chemicals, especially flammable ones (oxidants, acids).

Do not use sparking tools and equipment in storage area.

- Packaging materials

- RECOMMENDED: Original as made by the tank/container manufacturer with valid certification.

- NOT SUITABLE: Any other.

7.3 Specific end use(s):

No data available.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Hazardous substance (CAS No.)	values/sho	l exposure limit rt term values _/STEL)	Biological limit values
	ppm	mg/m³	
No data available.	-	-	-

- Monitoring procedures:

8.2. Exposure controls

- Summary of risk management measures: See Section 7.

8.2.1 Occupational exposure controls

- Description of operating procedure and technological control: Make sure work areas are well-ventilated. Provide a decontamination sprayer for the eyes and face. Adopt personal hygiene measures: wash the hands after contact with the fuel, especially before eating, drinking and/or smoking. Regularly maintain and wash the clothing and equipment after use to remove dirt. Properly dispose of the contaminated clothing and



According to the Regulation No. 1907/2006

Page 7 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

equipment. Maintain cleanliness in accordance with good practice. Educate the employees on the hazards and control measures. Test and maintain the equipment used when handling the fuel: for example, personal protective equipment, ventilation system. Do not swallow. If swallowed, seek medical attention.

8.2.2 Personal protective equipment

- respiratory protection: If the concentration is higher than permitted, use a protective half mask

or full-face mask (HRN EN 136/AC:2006) with a combined filter for organic gases/vapours (filter type A-P, boiling point >60 °C), a threaded connection complying with the HRN EN 14387 and HRN EN 143 standards (boiling point > 60 °C). During the fire, use a self-sustained open-circuit compressed-air breathing apparatus (HRN EN 137).

- hand protection: Personal hand hygiene is the most important element. The gloves shall

only be worn on clean hands. After using the gloves, the hands shall be washed and dried. The contaminated gloves shall not be used. For continuous use, wear protective gloves made of stable and impervious

material such as nitrile rubber or Viton (HRN EN 374).

- eye/face protection: Protective goggles or a visor at lower concentrations (HRN EN 166),

protective mask at higher concentrations.

- skin and body protection: Use chemical resistant gloves, clothing and apron (where there is a risk

of splashing).

- Special hygienic and Maintain the prescribed hygiene standards for working with hazardous safety precautions: Substances. Remove contaminated clothing and footwear. Inspect the

equipment and devices regularly and maintain with running water. Do not smoke, eat, and drink when handling the product. Wash hands

before breaks and at the end of work.

8.2.3 Environmental exposure controls

- Summary of risk management measures: No data available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- physical state: liquid

- colour: yellowish (INA MARINE EURODIESEL), green or blue (INA MARINE EURODIESEL BLUE)

- odour: very weak

- odour threshold: No data available.

- pH value (indicate conc. and temp.): Not applicable.

melting point/freezing point:
boiling point/boiling range:
°C
No data.
boiling point/boiling range:
°C
160 – 380

- flash point: °C ≥60

- evaporation rate: No data.

- flammability (solid, gas): Need to be heated to ignite.

- explosive limits: vol. % 0,6 - 6,5 (from literature)



According to the Regulation No. 1907/2006

Page 8 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

- vapour pressure: kPa 0,4

- vapour density at 15°C: kg/m³ No data.

- relative density: 0,820 – 0,845

- density at 15°C: kg/m³ 820,0 - 845,0

- solubility (indicate solvent): g/L No data.

- solubility in water: g/L No data.

- partition coefficient n-octanol / water logPow >3,3 (from literature)

- auto ignition temperature: °C 250 - 460 (from literature)

- decomposition temperature: $^{\circ}$ C No data. - kinematic viscosity at 40 $^{\circ}$ C: mm^2/s 2,0 – 4,5

- oxidizing properties: No applicable.

- conductivity: pS/m ≥50

9.2. Other information:

No data available.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:Stable under recommended handling and storage

conditions.

10.2 Chemical stability: Stable under recommended handling and storage

conditions.

10.3 Possibility of hazardous reactions: Potentially hazardous reactions are not known.

10.4 Conditions to avoid: Sources of heat, flame, spark.

10.5 Incompatible materials: Strong oxidants.

10.6 Hazardous decomposition products:

None in standard operating conditions and in proper

storage; however thermal decomposition may generate harmful gases: (including carbon-monoxide,

CO), sulphur and nitrogen oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

- Acute toxicity

- oral (LD $_{50}$): >5000 mg/kg $_{body\,weight}$ (rat)

- inhalation (LC₅₀): \geq 4,1 mg/l (rat)

- dermal (LD₅₀): >5 ml/kg _{body weight} (rabbit)

- Corrosion/Irritation

- skin: Redness, dermatitis (H315).

- Serious damage/irritation

HSE_INAG2.6_PD_INA2_R1



According to the Regulation No. 1907/2006

Page 9 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

- eyes: Irritating effect; may cause redness.

- Sensitisation

- skin: Sensitive people may experience redness and dermatitis.

respiratory tract: No data available.Germ cell mutagenicity: Not classified.

- Carcinogenicity: Suspected of causing cancer (H351).

- Reproductive toxicity: No data available.- STOT (SE): No data available.

- STOT (RE): May cause damage to thymus, liver, bone marrow through

prolonged or repeated exposure (H373).

- Aspiration hazard: May be fatal if swallowed and enters airways (H304).

- Information on likely routes of exposure: No data available.

- Symptoms related to the physical, chemical Long

and toxicological characteristics:

Long-term inhalation of vaporous causes a sense of

intoxication, headache, urge to vomiting, fainting.

- Delayed and immediate effects as well as chronic effects from short and long-term

exposure:

No data available.

11.2. Information on other hazards

- Endocrine disrupting properties: No data available.- Other information: No data available.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

- to aquatic organisms: LL50= 2 mg/l (Daphnia magna)

to ground organisms: No data available.to plants and land animals: No data available.

12.2. Persistence and degradability

- biodegradation: Not readily biodegradable.

- other degradation processes: Some components evaporate and degrade when

exposed to light.

- degradation in wastewater: No data available.

12.3. Bioaccumulative potential

- bio-concentration factor (BCF): log K_{ow} above 4,0

12.4. Mobility in soilMethod: No data available.

- Known or predicted distribution in No data available.

environmental compartments:

- surface tension: No data available.

HSE_INAG2.6_PD_INA2_R1



According to the Regulation No. 1907/2006

Page 10 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

- absorption/desorption: No data available.- other physical and chemical properties: See Section 9.

12.5. Results of PBT and vPvB assessment

- data from chemical safety report: No data available.
 12.6. Endocrine disrupting properties: No data available.
 12.7. Other adverse effects: No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods: Waste shall be handed over to the person authorised for

waste collection, disposal, or recovery. If possible, the

waste shall be recovered.

- Waste codes: 13 07 01*

- Waste from residues: There is no classic waste from this product except in case of

unintentional release. For such cases see Section 6.

- Contaminated packaging: Not applicable.

- Relevant provisions: Act on Waste Management, Regulation on waste catalogue,

Ordinance on waste management.

SECTION 14. TRANSPORT INFORMATION

14.1 UN number or ID number: 1202

14.2 UN proper shipping name: Gas oil or diesel fuel or fuel oil, light

14.3 Transport hazard class(es)

ADR/RID/ADN/ICAO/IATA: 3
IMDG: 3

14.4 Packing group

ADR/RID/ADN/IMDG/ICAO/IATA: III

14.5 Environmental hazards

ADR, RID, ADN, ICAO/IATA: toxic to aquatic life with long lasting effects

IMDG: maritime pollutant

14.6 Special precautions for user

ADR RID

Transport category: 3 Transport category: 3

Vehicle for tank carriage: Tank code:

AT (flash point from 60°C but not larger than 100 LGBV (flash point from 60°C but not larger than 100

°(

Tank code: Label: 3

Classification code: F1

°C)



According to the Regulation No. 1907/2006

Page 11 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

LGBV (flash point from 60°C but not larger than

100 °C)

Hazard identification: 30 Special provisions: 640 M, W12

Tunnel restriction code: (D/E)

Label: 3

Classification code: F1 Hazard identification: 30

Special provisions: 640 M, 664

ADN IMDG

Label: 3 Subsidiary risk: maritime pollutant Additional requirements/Remarks: *see 3.2.3.3 Group of the cargo: category A

ADN Special provisions: 363

Dangers: 3+(N1,N2,N3,CMR,F,S) EmS: F-E, S-E

Equipment required: Segregation group: category A

Classification code: F1 Carriage permitted: T Type of tank vessel: N/3

Anti-explosion protection required: no

Maximum degree of filling in %: *see 3.2.3.3 ADN

ICAO

Label: 3

Cargo IMP code: RFL

Passenger and cargo aircraft: YES EQ: E1; Ltd Qty: 10L; Pkg Inst: Y344 Max Net Qty/Pkg: 60L; Pkg Inst: 355

Cargo aircraft only: YES

Pkg Inst: 366; Max Net Qty/Pkg: 220L

ERG code: 3L

14.7 Maritime transport in bulk according to IMO instruments

Trade name:

Pollution category (according to MARPOL, Annex II):

Vessel type (according to IBC Code):

Special and operative requirements (according to IBC Code):

15. REGULATORY INFORMATION

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

HSE_INAG2.6_PD_INA2_R1



According to the Regulation No. 1907/2006

Page 12 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

- Applicable EU regulations: Regulation (EC) No 1907/2006 of the European Parliament and

of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and 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 (CLP); Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No

1907/2006 (REACH).

- Applicable national regulations: Act on Chemicals; Ordinance on workers protection to

dangerous chemicals exposure during work, exposure limit values and biological limit values; Act on Waste Management, Regulation on waste catalogue, Ordinance on waste

management.

- Authorization information: -

- Restriction information: -

15.2 Chemical Safety Assessment

- Chemical Safety Assessment carried out (CSA): YES X NO

16. OTHER INFORMATION

Revision indicators

Section: Subject of change:

14 Special precautions for user

Full text of H-phrases

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation. H332 Harmful if inhaled.

H351 Suspected of causing cancer.

H373 May cause damage to thymus, liver, bone marrow through prolonged or repeated

exposure.

H411 Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:

ADN European Agreement concerning the International Carriage of Dangerous Goods by

Inland Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by

Road

CAS number Chemical Abstract Service number

CLP Classification, Labelling and Packaging of substances and mixtures



According to the Regulation No. 1907/2006

Page 13 of 28

Product	INA MARINE EURODIESEL	Date:	2024/04/24
	INA MARINE EURODIESEL BLUE	Edition:	3

CSA Chemical Safety Assessment

CSR Chemical Safety Report

available in the EU

IATA International Air Transport Association
ICAO International Civil Aviation Organization

IMDG International Maritime Dangerous Goods Code transport

LC50 Lethal concentration for 50% of tested organisms

LD50 Lethal concentration for 50% of tested organisms (medium lethal concentration)

OIN Oil industry notes

PBT Persistent, bioaccumulative and toxic

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Regulations Concerning the International Transport of Dangerous Goods by Rail

STOT (SE) Specific Target Organ Toxicity (Single Exposure)
STOT (RE) Specific Target Organ Toxicity (Repeated Exposure)

UFI Unique formula identifier (according to section 5. Part A of Annex VIII of Regulation

(EU) no. 1272/2008)

UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction

Products and Biological Materials

vPvB Very persistent and very bioaccumulative

Statement:

This SDS is in compliance with the EU Regulation No. 1907/2006 and No. 1272/2008 of the European Parliament and the Council. It contains important user health and safety and environmental protection information. The information provided herein is not a substitute for any specification of quality and should not be deemed as a guarantee of the adequacy and applicability of this product for any purpose whatsoever. All information provided herein is based on our current knowledge and compliant with applicable legal regulations. The user is responsible for adherence to relevant legal regulations.

Data source:

- 1. www.hzt.hr
- 2. http://echa.europa.eu/hr
- 3. Handbook Identified Uses of Petroleum Substances 2031 Dossier Update, Concawe
- 4. Hazard Classification and Labelling of Petroleum Substances in the EEA 2023, Concawe
- 5. First Aid Reference Guide 2021 update

APPENDIX: EXPOSURE SCENARIOS ACCORDING TO CHEMICAL SAFETY REPORT



According to the Regulation No. 1907/2006

Page 14 of 28

Product	INA MARINE EURODIESEL	Date:	2024/04/24
	INA MARINE EURODIESEL BLUE	Edition:	3

Appendix: Exposure Scenario

Identified Use Description and Exposure Scenario Number Key

IU	Category	Identified Use Name	Sector	Sector of Use (SU)	Product Category (PC)	Process Category (PROC)	Article Category (AC)	Environmental Release Category (ERC)	Specific Environmental Release Category (SpERC)
1	Vacuum gas oils, hydrocracked gas oils and	01 – Manufacture of Substance	Industrial	3, 8, 9	NA	1, 2, 3, 4, 8a, 8b,15	NA	1	ESVOC SpERC 1.1.v1
4	Vacuum gas oils, hydrocracked gas oils and distillate fuels	02 – Formulation & (Re)packing of Substances and Mixtures	Industrial	3, 10	NA	1, 2, 3, 4, 5, 8a, 8b, 9, 14, 15	NA	2	ESVOC SpERC 2.2.v1
15	Vacuum gas oils, hydrocracked gas oils and distillate fuels	12a – Use as a Fuel: Industrial	Industrial	3	NA	1, 2, 3, 8a, 8b, 16	NA	7	ESVOC SpERC 7.12a.v1
16	Vacuum gas oils, hydrocracked gas oils and distillate fuels	12b – Use as a Fuel: Professional	Professional	22	NA	1, 2, 3, 8a, 8b, 16	NA	9a, 9b	ESVOC SpERC 9.12b.v1
17	Vacuum gas oils, hydrocracked gas oils and distillate fuels	12c – Use as a Fuel: Consumer	Consumer	21	13	NA	NA	9a, 9b	ESVOC SpERC 9.12c.v1



According to the Regulation No. 1907/2006

Page 15 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

1. Manufacture of Gas Oils (vacuum, hydrocracked & distillate fuels) H304 / non-H304, H315, H332, H351, H373, H411 – Industrial

non-H304, H315, H332, H351, H3 Title Manufacture of Substance	373, H411			
Manufacture of Substance				
Use Descriptor				
Sector(s) of Use		3, 8, 9		
Process Categories		1, 2, 3, 4, 8a, 8b, 15		
Environmental Release Categorie	!S	1		
Specific Environmental Release C		ESVOC SpERC 1.1.v1		
Processes, tasks, activities covere		'		
		mical or extraction agent. Includes recycling / recovery, material		
		vities, maintenance and loading (including marine vessel/barge,		
road/rail car and bulk container).	,	,		
Assessment Method				
See Section 3.				
Section 2 Operational conditions	s and risk management	measures		
Section 2.1 Control of worker ex				
Product characteristics	Posure			
Physical form of product	Liquid With notential	for aerosol generation [CS138]		
Vapour pressure (kPa)		re <0.5 kPa at STP. OC3.		
Concentration of substance		bstance in the product up to 100 % (unless stated		
in product	differently) G13	botance in the product up to 100 % (dimess stated		
Frequency and duration of		s up to 8 hours (unless stated differently) G2		
use/exposure				
Other Operational Conditions	Operation is carried o	ut at elevated temperature (> 20°C above ambient temperature).		
affecting exposure		basic standard of occupational hygiene is implemented G1.		
ContributingScenarios	Specific Risk Manager	nent Measures and Operating Conditions		
General measures applicable to all activities CS135	designed and maintain	exposure using measures such as contained systems, properly ined facilities and a good standard of general ventilation. Drain ansfer lines prior to breaking containment. Drain down and flush		
65155		ssible prior to maintenance.		
		tial for exposure: Ensure relevant staff are informed of exposure		
		of basic actions to minimise exposures; ensure suitable personal		
	protective equipment is available; clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; provide regular health surveillance as appropriate; identify and implement corrective actions. G25			
General measures (skin irritants) <mark>G19</mark>	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off skin contamination immediately. Provide basic employee training to prevent			
General exposures (Closed	/ minimise exposures and to report any skin effects that may develop. E3 Handle substance within a closed system E47			
systems) CS15	Handle substance within a closed system E47			
General exposures (Open systems) CS16	Wear suitable gloves tested to EN374 PPE15			
Process Sampling CS2	No other specific measures identified E120			



According to the Regulation No. 1907/2006

Page 16 of 28

Product	INA MARINE EURODIESEL	Date:	2024/04/24
	INA MARINE EURODIESEL BLUE	Edition:	3

Bulk closed loading and	Handle substance within a closed system E47 Wear	r suitable gloves tested to EN374			
unloading CS501	PPE15	5			
	Wear suitable gloves tested to EN374 PPE15				
CS503					
Equipment cleaning and	Drain down system prior to equipment break-in or maintenance. E65. Wear chemicall				
maintenance CS39	resistant gloves (tested to EN374) in combination w	with 'basic' employee training. PPE16			
Laboratory activities CS36	No other specific measures identified E120				
Bulk storage CS85	Store substance within a closed system. E84				
Section 2.2 Control of environme					
Product characteristics	·				
	B]. Predominantly hydrophobic [PrC4a].				
Amounts used	j. Tredominantly hydrophobic [Tre-au].				
	-i	0.1			
Fraction of EU tonnage used in re		0.1 2.8e7			
Regional use tonnage (tonnes/year Fraction of Regional tonnage used		0.021			
Annual site tonnage (tonnes/year	· · · · · · · · · · · · · · · · · · ·	6.0e5			
Maximum daily site tonnage (kg/g		2.0e6			
Frequency and duration of use	aay)	2.000			
Continuous release [FD2].					
Emission days (days/year)		300			
Environmental factors not influer	nced by risk management	300			
Local freshwater dilution factor	- Issue 27 Harring Ermeine	10			
Local marine water dilution facto		100			
	ns affecting environmental exposure	100			
Release fraction to air from proce		1.0e-2			
	om process (initial release prior to RMM)	3.0e-5			
	5p. 6 5 5 5 6	0.000			
Release fraction to soil from proc	ess (initial release prior to RMM)	0.0001			
Technical conditions and measure	es at process level (source) to prevent release				
Common practices vary across sit	es thus conservative process release estimates used	d [TCS1].			
Technical onsite conditions and n	neasures to reduce or limit discharges, air emissions	and releases to soil			
	e is driven by freshwater sediment [TCR1b].	CD4.43			
	substance to or recover from onsite wastewater [TG treatment plant, no onsite wastewater treatment i				
Treat air emission to provide a ty		90			
	receiving water discharge) to provide the required	90.3			
removal efficiency 22(%)					
If discharging to domestic sewage	e treatment plant, provide the required onsite	0			
wastewater removal efficiency of 🖭 (%)					
Organisation measures to prever					
	d substance to or recover from wastewater [OMS1 uld be incinerated, contained or reclaimed OMS3].]. Do not apply industrial sludge to			
Conditions and measures related	to municipal sewage treatment plant				
	m wastewater via domestic sewage treatment (%)	94.1			
Total efficiency of removal from v	94.1				
(domestic treatment plant) RMMs (%) Maximum allowable site tonnage (MSafe) based on release following total 3.3e6					
wastewater treatment removal (k	cg/d)	5.500			
Assumed domestic sewage treatr	ment plant flow (m ³ /d)	10000			



According to the Regulation No. 1907/2006

Page 17 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

Conditions and measures related to external treatment of waste for disposal

During manufacturing no waste of the substance is generated to treat [ETW4].

Conditions and measures related to external recovery of waste

During manufacturing no waste of the substance is generated to recover [ERW2]

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23.

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.

4.2. Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html). Scaled assessments for EU refineries have been performed using site-specific data and are attached in PETRORISK file attached to IUCLID section 13 – "Site-Specific Production" worksheet [DSU6]. For refinery sites where scaling revealed a condition of unsafe use (i.e., RCRs > 1), a site-specific chemical safety assessment was required [DSU8]. Taking into account the findings of the air- monitoring evaluation on benzene included as the Tier 2 analysis in the Low Boiling Point Naphtha category, the default "Air Removal Efficiency" of 90 % included in the SPERC has been shown to be over-conservative and that 95 % efficiency can safely be claimed in a Tier II analysis. On this basis, the Tier 2 analysis demonstrates that no refineries have RCRs>1 (see PETRORISK file in IUCLID section 13 – "Tier 2 Site Specific Production worksheet").



According to the Regulation No. 1907/2006

Page 18 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

2. Formulation & (Re)packing of Gas Oils (vacuum, hydrocracked & distillate fuels) H304 / non-H304, H315, H332, H351, H373, H411 – Industrial

Section 1 Exposure Scenario Title non-H304, H315, H332, H351, H3		drocracked & distillate fuels) H304 /	
Title			
Formulation & (Re)packing of Sub	stances and Mixtures		
Use Descriptor			
Sector(s) of Use		3, 10	
Process Categories		1, 2, 3, 4, 5, 8a, 8b, 9, 14, 15	
Environmental Release Categorie	c	2	
Specific Environmental Release C		ESVOC SpERC 2.2.v1	
Processes, tasks, activities covere		2.2.VI	
		e and its mixtures in batch or continuous operations,	
		g, compression, pelletization, extrusion, large and small	
scale packing, maintenance, sam			
Assessment Method	1 0	,	
See Section 3.			
Section 2 Operational conditions	and risk managemen	t measures	
Section 2.1 Control of worker ex		t incusures	
Product characteristics			
Physical form of product	Liquid With potential	for aerosol generation [CS138]	
Vapour pressure (kPa)		ire <0.5 kPa at STP. OC3.	
Concentration of substance in		ubstance in the product up to 100 % (unless stated differently) G13	
product		' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	
Frequency and duration of	Covers daily exposure	es up to 8 hours (unless stated differently) G2	
use/exposure			
Other Operational Conditions		more than 20°C above ambient temperature, unless stated	
affecting		ssumes a good basic standard of occupational hygiene is	
exposure	implemented G1.		
Contributing Scenarios	Specific Risk Manage	ment Measures and Operating Conditions	
General measures applicable to	Control any potentia	l exposure using measures such as contained systems, properly	
all activities CS135		ined facilities and a good standard of general ventilation. Drain	
		ansfer lines prior to breaking containment. Drain down and flush	
		ssible prior to maintenance.	
		ntial for exposure: Ensure relevant staff are informed of exposure	
		of basic actions to minimise exposures; ensure suitable personal It is available; clear up spills and dispose of waste in accordance	
		uirements; monitor effectiveness of control measures; provide	
		llance as appropriate; identify and implement corrective actions.	
	G25		
General measures (skin		ract with product. Identify potential areas for indirect skin contact.	
irritants) G19		to EN374) if hand contact with substance likely. Clean up	
		as soon as they occur. Wash off skin contamination immediately.	
	effects that may deve	ee training to prevent / minimise exposures and to report any skin	
	lenects that may deve	crop. L3	
General exposures (closed	Handle substance within a closed system E47		
systems) CS15	Trandic Substance Within a closed system L4/		
General exposures (open	Wear suitable gloves tested to EN374 PPE15		
systems) CS16	0		
Batch processes at elevated	Provide extract ventilation to points where emissions occur E54		
temperatures [CS136]			



According to the Regulation No. 1907/2006

Page 19 of 28

Product	INA MARINE EURODIESEL	Date:	2024/04/24
	INA MARINE EURODIESEL BLUE	Edition:	3

	1		
Process sampling CS2	No other specific measures identified E120		
Drum and batch transfers CS8	Use drum pumps or carefully pour from container E64 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training PPE16		
Bulk transfers CS14	Handle substance within a closed system E47 Wear suitable gloves tested to EN374 PPE15		
Mixing operations (open systems) CS30	Provide extract ventilation to points where emissions occur E54 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training PPE16		
Production or preparation or articles by tabletting, compression, extrusion or pelletisation CS100	Wear suitable gloves tested to EN374 PPE15		
Drum and small package filling CS8	Wear suitable gloves tested to EN374 PPE15		
Laboratory activities CS36	No other specific measures identified EI20		
Equipment clean down and maintenance CS39	Drain down system prior to equipment break-in or r resistant gloves (tested to EN374) in combination wi		
Storage CS67	Store substance within a closed system. E84		
Section 2.2 Control of environm	ental exposure		
Product characteristics			
Substance is compley LIVCR [PrC	3]. Predominantly hydrophobic [PrC4a].		
Amounts used	oj. Tredominantij flydropriobie [Fre-ta].		
		0.1	
Fraction of EU tonnage used in re		0.1	
Regional use tonnage (tonnes/ye		2.8e7	
Fraction of Regional tonnage use		0.0011	
Annual site tonnage (tonnes/yea		3.0e4	
Maximum daily site tonnage (kg/	day)	1.0e5	
Frequency and duration of use			
Continuous release [FD2].		200	
Emission days (days/year) Environmental factors not influe	need by rick management	300	
	niced by risk management	T	
Local freshwater dilution factor		10	
Local marine water dilution factor		100	
	ns affecting environmental exposure	1.0- 2	
· ·	ess (after typical onsite RMMs, consistent with EU irements)	1.0e-2	
Solvent Emissions Directive requirements) Release fraction to wastewater from process (initial release prior to RMM)		2.0e-5	
Release fraction to soil from pro	cess (initial release prior to RMM)	0.0001	
·	res at process level (source) to prevent release	1	
Common practices vary across si	tes thus conservative process release estimates used	[TCS1].	
	measures to reduce or limit discharges, air emissions		
Risk from environmental exposu	re is driven by freshwater sediment [TCR1b].		
	substance to or recover from onsite wastewater [TC	R14].	
	e treatment plant, no onsite wastewater treatment r	=	
Treat air emission to provide a ty		0	
Treat onsite wastewater (prior to removal efficiency 🖫 (%)	59.9		
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ②2(%)			



According to the Regulation No. 1907/2006

Page 20 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24 Edition: 3 INA MARINE EURODIESEL BLUE

Organisation measures to prevent/limit release from site				
Prevent discharge of undissolved substance to or recover from wastewater [OMS1]. Do not apply industrial sludge to				
natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed [OMS3].				
Conditions and measures related to municipal sewage treatment plant				
Estimated substance removal from wastewater via domestic sewage treatment (%)	94.1			
Total efficiency of removal from wastewater after onsite and offsite	94.1			
(domestic treatment plant) RMMs (%)				
Maximum allowable site tonnage (MSafe) based on release following total	6.8e5			
wastewater treatment removal (kg/d)				
Assumed domestic sewage treatment plant flow (m ³ /d)	2000			
Conditions and measures related to external treatment of waste for disposal	•			

External treatment and disposal of waste should comply with applicable regulations [ETW3].

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable regulations [ERW1].

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. G21.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23.

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. <mark>G36</mark>. Risk Management Measures are based on qualitative risk characterisation. G37.

4.2. Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures [DSU1].

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control

technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries. html) [DSU4].



According to the Regulation No. 1907/2006

Page 21 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

3. Use of Gas Oils (vacuum, hydrocracked & distillate fuels) H304 / non-H304, H315, H332, H351, H373, H411 as a Fuel – Industrial

Costian 1 Evnasura Cooparia Titl	a Gas Oils /vasuum by	drographed & distillate fuels) H204 /	
non-H304, H315, H332, H351, H3		drocracked & distillate fuels) H304 /	
Title	575,11111		
Use as a Fuel			
Use Descriptor			
Sector(s) of Use		3	
Process Categories		1, 2, 3, 8a, 8b, 16	
Environmental Release Categories 7			
Specific Environmental Release Category ESVOC SpERC 7.12a.v1			
Processes, tasks, activities covere	ed	·	
		omponents) and includes activities associated with its transfer,	
use, equipment maintenance and		,	
Assessment Method			
See Section 3.			
Section 2 Operational condition	s and risk management	t measures	
Section 2.1 Control of worker ex	posure		
Product characteristics			
Physical form of product		for aerosol generation [CS138]	
Vapour pressure (kPa)		re <0.5 kPa at STP. <mark>OC3</mark> .	
Concentration of substance in	Covers percentage su	bstance in the product up to 100 % (unless stated differently) G13	
product	C	to the Observe (colors should differently) C2	
Frequency and duration of	Covers daily exposure	es up to 8 hours (unless stated differently) G2	
use/exposure Other Operational Conditions	Assumes use at not	more than 20°C above ambient temperature, unless stated	
affecting exposure		sumes a good basic standard of occupational hygiene is	
	implemented G1.	sames a good same of companying hypothesis	
ContributingScenarios	Specific Risk Manager	ment Measures and Operating Conditions	
General measures applicable to	Control any potential	exposure using measures such as contained systems, properly	
all activities		ined facilities and a good standard of general ventilation. Drain	
CS135		ansfer lines prior to breaking containment. Drain down and flush	
		ssible prior to maintenance.	
		tial for exposure: Ensure relevant staff are informed and aware of basic actions to minimise exposures; ensure suitable	
	· ·	equipment is available; clear up spills and dispose of waste in	
		latory requirements; monitor effectiveness of control measures;	
		h surveillance as appropriate; identify and implement corrective	
	actions. G25	, , , ,	
General measures (skin	Avoid direct skin contact with product. Identify potential areas for indirect skin contact.		
irritants) <mark>G19</mark>	Wear gloves (tested to EN374) if hand contact with substance likely. Clean up		
	contamination/spills a		
	Wash off skin contamination immediately. Provide basic employee training to prever		
	/ minimise exposures	and to report any skin effects that may develop. E3	
Bulk transfers CS14	Wear suitable gloves	tested to EN374. PPE15	
Drum/batch transfers CS8		tested to EN374.PPE15	
Use as a fuel (closed	No other specific measures identified EI20		
ystems) GEST_12I,			
CS107			
	1		



SAFETY DATA SHEET

According to the Regulation No. 1907/2006

Page 22 of 28

Product	INA MARINE EURODIESEL	Date: 2024	1/04
	INA MARINE EURODIESEL BLUE	Edition:	3
Equipment cleaning and maintenance CS39	Drain down system prior to equipment break-in chemically resistant gloves (tested to type E		,
Storage CS67	employee training PPE16 Handle substance within a closed system. E84		1
Section 2.2 Control of enviro			
Product characteristics			
	PrC3]. Predominantly hydrophobic [PrC4a].		+
Amounts used	Treasi. Treasiminantly Hydrophobic (Fre laj.		-
	in region	0.1	-
Fraction of EU tonnage used i Regional use tonnage (tonnes		4.5e6	+
Fraction of Regional tonnage		0.34	+
Annual site tonnage (tonnes/	· · · · · · · · · · · · · · · · · · ·	1.5e6	+
Maximum daily site tonnage (5.0e6	-
Frequency and duration of us			\dashv
Continuous release [FD2].			\dashv
Emission days (days/year)		300	1
	fluenced by risk management	300	
ocal freshwater dilution fact	·	10	+
Local marine water dilution fa		100	
Other given operational cond	itions affecting environmental exposure		1
	rocess (initial release prior to RMM)	5.0e-3	
Release fraction to wastewat	er from process (initial release prior to RMM)	0.00001	1
Release fraction to soil from p	process (initial release prior to RMM)	0	
Technical conditions and mea	asures at process level (source) to prevent release		
	ss sites thus conservative process release estimates us		
Technical onsite conditions a	nd measures to reduce or limit discharges, air emissio	ns and releases to soil	
Dial france and income and all aver			-
	osure is driven by freshwater sediment [TCR1b]. vage treatment plant, no onsite wastewater treatmer	t required (TCR9)	
	a typical removal efficiency of (%)	95	-
Treat onsite wastewater (pric	or to receiving water discharge) to provide the require		
removal efficiency 🖫 (%)		50.4	4
it discharging to domestic sev	vage treatment plant, provide the required	60.4	
ancita wastowator romoval o	=		
	fficiency of 22(%)		
Organisation measures to pre	fficiency of 22(%) event/limit release from site	Do not apply industrial sludge to	0
Organisation measures to pre Prevent discharge of undisso	fficiency of 22(%)		0
Organisation measures to pre Prevent discharge of undisso natural soils [OMS2]. Sludge	fficiency of ��(%) event/limit release from site lived substance to or recover from wastewater [OMS		0
natural soils [OMS2]. Sludge Conditions and measures rela	fficiency of ②②(%) event/limit release from site lived substance to or recover from wastewater [OMS should be incinerated, contained or reclaimed [OMS3].	0
Organisation measures to pre Prevent discharge of undisso natural soils [OMS2]. Sludge Conditions and measures rela Estimated substance removal	fficiency of 22(%) event/limit release from site lived substance to or recover from wastewater [OMS] should be incinerated, contained or reclaimed [OMS3] ated to municipal sewage treatment plant].	0
Organisation measures to pre- Prevent discharge of undisso natural soils [OMS2]. Sludge Conditions and measures rela- Estimated substance removal Fotal efficiency of removal fro treatment plant) RMMs (%)	fficiency of 22(%) event/limit release from site lived substance to or recover from wastewater [OMS] should be incinerated, contained or reclaimed [OMS3] exted to municipal sewage treatment plant If from wastewater via domestic sewage treatment (%) om wastewater after onsite and offsite (domestic	94.1	0
Organisation measures to preprevent discharge of undissonatural soils [OMS2]. Sludge Conditions and measures related substance removal frotal efficiency of removal from the conditions and measures related substance removal from the conditions and measures related substance removal from the conditions and measures related substance removal from the conditions and measures related to the conditions and the conditions are conditions are conditions are conditions are conditions are conditions and the conditions are con	fficiency of @2(%) event/limit release from site lived substance to or recover from wastewater [OMS] should be incinerated, contained or reclaimed [OMS] ated to municipal sewage treatment plant I from wastewater via domestic sewage treatment (% om wastewater after onsite and offsite (domestic) 94.1	0
Organisation measures to pre- Prevent discharge of undisso natural soils [OMS2]. Sludge Conditions and measures rela- Estimated substance removal Total efficiency of removal from the present plant (MMs (%)) Maximum allowable site tones wastewater treatment removal	fficiency of ②(%) event/limit release from site lived substance to or recover from wastewater [OMS] should be incinerated, contained or reclaimed [OMS3] exted to municipal sewage treatment plant If from wastewater via domestic sewage treatment (%) from wastewater after onsite and offsite (domestic longe (MSafe) based on release following total val (kg/d)	94.1 97.7 5.0e6	00
Organisation measures to preprevent discharge of undissonatural soils [OMS2]. Sludge Conditions and measures relates timated substance removal Total efficiency of removal from the creatment plant) RMMs (%) Maximum allowable site tone wastewater treatment removal Assumed domestic sewage tr	fficiency of ②②(%) event/limit release from site lived substance to or recover from wastewater [OMS] should be incinerated, contained or reclaimed [OMS] ated to municipal sewage treatment plant I from wastewater via domestic sewage treatment (% om wastewater after onsite and offsite (domestic mage (MSafe) based on release following total val (kg/d) eatment plant flow (m³/d)	94.1	00
Organisation measures to pre- Prevent discharge of undisso natural soils [OMS2]. Sludge Conditions and measures rela- Estimated substance removal Fotal efficiency of removal from treatment plant) RMMs (%). Maximum allowable site toner wastewater treatment removal Assumed domestic sewage treatments and measures relations.	fficiency of 22(%) event/limit release from site lived substance to or recover from wastewater [OMS] should be incinerated, contained or reclaimed [OMS] ated to municipal sewage treatment plant I from wastewater via domestic sewage treatment (% om wastewater after onsite and offsite (domestic large (MSafe) based on release following total val (kg/d) eatment plant flow (m³/d) ated to external treatment of waste for disposal	94.1 97.7 5.0e6 2000	00
Organisation measures to pre- Prevent discharge of undisso natural soils [OMS2]. Sludge Conditions and measures rela- Estimated substance removal Fotal efficiency of removal from the reatment plant) RMMs (%) Maximum allowable site tone wastewater treatment removal Assumed domestic sewage treatments and measures rela- Combustion emissions limited	fficiency of ②(%) event/limit release from site lived substance to or recover from wastewater [OMS] should be incinerated, contained or reclaimed [OMS3] eted to municipal sewage treatment plant I from wastewater via domestic sewage treatment (%) om wastewater after onsite and offsite (domestic large (MSafe) based on release following total real (kg/d) eatment plant flow (m³/d) eated to external treatment of waste for disposal down by required exhaust emission controls [ETW1]. Coml	94.1 97.7 5.0e6 2000	00
Organisation measures to pre- Prevent discharge of undisso natural soils [OMS2]. Sludge Conditions and measures rela- Estimated substance removal Fotal efficiency of removal from the prevent plant) RMMs (%) Maximum allowable site tone wastewater treatment removal Assumed domestic sewage treatment domestic sewage treatment plant) RMS (%) Conditions and measures rela- Combustion emissions limited regional exposure assessment	fficiency of ②(%) event/limit release from site lived substance to or recover from wastewater [OMS] should be incinerated, contained or reclaimed [OMS3] eted to municipal sewage treatment plant I from wastewater via domestic sewage treatment (%) om wastewater after onsite and offsite (domestic large (MSafe) based on release following total real (kg/d) eatment plant flow (m³/d) eated to external treatment of waste for disposal down by required exhaust emission controls [ETW1]. Coml	94.1 97.7 5.0e6 2000	00



According to the Regulation No. 1907/2006

Page 23 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23.

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.

4.2. Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures [DSU1].

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].



According to the Regulation No. 1907/2006

Page 24 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

4. Use of Gas Oils (vacuum, hydrocracked & distillate fuels) H304 / non-H304, H315, H332, H351, H373, H411 as a Fuel – Professional

		drocracked & distillate fuels) H304 /	
non-H304, H315, H332, H351, H3	373, H411		
Title			
Use as a Fuel			
Use Descriptor			
Sector(s) of Use		22	
Process Categories 1, 2, 3, 8a, 8b, 16			
Environmental Release Categorie	PS	9a, 9b	
Specific Environmental Release C		ESVOC SpERC 9.12b.v1	
Processes, tasks, activities covere			
		omponents) and includes activities associated with its transfer,	
use, equipment maintenance and		,	
Assessment Method	-		
See Section 3.			
Section 2 Operational conditions	s and risk managemen	t measures	
Section 2.1 Control of worker ex			
Product characteristics			
Physical form of product	Liquid With potential	for aerosol generation [CS138]	
Vapour pressure (kPa)	Liquid, vapour pressu	re <0.5 kPa at STP. OC3.	
Concentration of substance in	Covers percentage su	bstance in the product up to 100 % (unless stated differently)	
product	G13		
Frequency and duration of	Covers daily exposure	es up to 8 hours (unless stated differently) G2	
use/exposure			
Other Operational Conditions		ore than 20°C above ambient temperature, unless stated	
affecting exposure		mes a good basic standard of occupational hygiene is	
	implemented G1.		
Contributing Scenarios	Specific Risk Manager	ment Measures and Operating Conditions	
General measures applicable to	Control any notentia	exposure using measures such as contained systems, properly	
all activities		ined facilities and a good standard of general ventilation. Drain	
CS135		ansfer lines prior to breaking containment. Drain down and flush	
	equipment where pos	ssible prior to maintenance.	
		tial for exposure: Ensure relevant staff are informed of exposure	
		of basic actions to minimise exposures; ensure suitable personal	
	protective equipment is available; clear up spills and dispose of waste in accordance		
		irements; monitor effectiveness of control measures; provide	
		lance as appropriate; identify and implement corrective actions.	
	G25		
Canada a a a a a a a a a a a a a a a a a	Accessed altimates altitudes at	and the same district the same in the same	
General measures (skin	Avoid direct skin contact with product. Identify potential areas for indirect skin contact.		
irritants) G19	Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur.		
		ination immediately. Provide basic employee training to prevent	
		and to report any skin effects that may develop. E3	
	<u>'</u>	· ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	
Bulk transfers CS14	Wear suitable gloves	tested to EN374. PPE15	
Drum/batch transfers CS8	Use drum pumps or c	arefully pour from container <mark>E64</mark> Wear suitable	
	gloves tested to EN374.PPE15		
Refuelling activities CS507	elling activities CS507 Wear suitable gloves tested to EN374 PPE15		
	1		



Product

SAFETY DATA SHEET

According to the Regulation No. 1907/2006

Date:

Page 25 of 28

3

2024/04/24

Froduct	INA MARINE EURODIESEL	Date. 2024)	
	INA MARINE EURODIESEL BLUE	Edition:	
Use as a fuel (closed systems) GEST_12I, CS107	Provide a good standard of general ventilation hour) E11 or Ensure operation is undertaken ou		
Equipment cleaning and maintenance CS39	Drain down system prior to equipment break-in or maintenance E65 Wear chemical resistant gloves (tested to EN374) in combination with basic employee training PPE16		
Storage CS67	Store substance within a closed system E84		
Section 2.2 Control of environ	mental exposure		
Product characteristics			
Substance is complex UVCB [Pr	rC3]. Predominantly hydrophobic [PrC4a].		
Amounts used			
Fraction of EU tonnage used in	region	0.1	
Regional use tonnage (tonnes/		6.7e6	
Fraction of Regional tonnage u	sed locally	0.0005	
Annual site tonnage (tonnes/y	ear)	3.3e3	
Maximum daily site tonnage (k	g/day)	9.2e3	
Frequency and duration of use	:		
Continuous release [FD2].			
Emission days (days/year)		365	
Environmental factors not influ	uenced by risk management		
Local freshwater dilution facto		10	
Local marine water dilution fac		100	
	cions affecting environmental exposure		
Release fraction to air from	wide dispersive use (regional use only) [OOC7]	1.0e-4	
Release fraction to wastewate	r wide dispersive use [OOC8]	0.00001	
Release fraction to soil from w	ide dispersive use (regional use only) [OOC9]	0.00001	
Technical conditions and meas	sures at process level (source) to prevent release		
Common practices vary across	sites thus conservative process release estimates us	sed [TCS1].	
Technical onsite conditions and	d measures to reduce or limit discharges, air emissic	ns and releases to soil	
Risk from environmental expos	sure is driven by humans via indirect exposure (prim	arily ingestion)	
[TCR1j].			
No wastewater treatment requ		D1/0	
	typical removal efficiency of (%) r to receiving water discharge) to provide the requ	N/A	
removal efficiency 22(%)	to receiving water discharge, to provide the requ	read	
	ewage treatment plant, provide the required on	site 0	
wastewater removal efficiency	of ??(%)		
Organisation measures to prev			
	ved substance to or recover from wastewater [OM hould be incinerated, contained or reclaimed [OMS3		
Conditions and measures relat	ed to municipal sewage treatment plant		
	from wastewater via domestic sewage treatment (%) 94.1	
Total efficiency of removal fror (domestic treatment plant) RN	m wastewater after onsite and offsite	94.1	
Maximum allowable site tonna	age (MSafe) based on release following total	1.4e5	
wastewater treatment remova			

INA MARINE EURODIESEL



According to the Regulation No. 1907/2006

Page 26 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

Assumed domestic sewage treatment plant flow (m³/d)

2000

Conditions and measures related to external treatment of waste for disposal

Combustion emissions limited by required exhaust emission controls [ETW1]. Combustion emissions considered in regional exposure assessment [ETW2].

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable regulations [ERW1].

Additional information on the basis for the allocation of the identified OCs and RMMs is contained in PETRORISK file.

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23.

Available hazard data do not enable the derivation of a DNEL for dermal irritant effects. G32. Available hazard data do not support the need for a DNEL to be established for other health effects. G36. Risk Management Measures are based on qualitative risk characterisation. G37.

4.2. Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures [DSU1]. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination [DSU2]. Required removal efficiency for air can be achieved using onsite technologies, either alone or in combination [DSU3]. Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].



According to the Regulation No. 1907/2006

Page 27 of 28

Product INA MARINE EURODIESEL Date: 2024/04/24
INA MARINE EURODIESEL BLUE Edition: 3

5. Use of Gas Oils (vacuum, hydrocracked & distillate fuels) H304 / non-H304, H315, H332, H351, H373, H411 as a Fuel – Consumer

Section 1 Exposu	re Scenario Tit	le Gas Oils (vacuum, hydrocracked & distillate fuels) H304 /		
non-H304, H315,	H332, H351, H	373, H411		
Title				
Use as a Fuel				
Use Descriptor				
Sector(s) of Use		21		
Product Categories		13		
Environmental Re	lease Categorie	9a, 9b		
Specific Environm				
Processes, tasks,	activities covere	ed		
Covers consumer				
Assessment Meth				
See Section 3.				
	ional condition	or and rick management measures		
Section 2.1 Cont		as and risk management measures		
		l exposure		
Physical form of p		liquid		
Vapour pressure		Liquid, vapour pressure > 10 Pa OC15		
Concentration of		Unless otherwise stated, cover concentrations up to 100% [ConsOC1]		
product	substance in	offices otherwise stated, cover concentrations up to 100/0 [consoci]		
Frequency and du	uration of	Unless otherwise stated, covers use amounts up to 37500g [ConsOC2]; covers skin		
use/exposure		contact area up to 420cm2 [ConsOC5]		
Other Operationa	ıl	Unless otherwise stated, covers use frequency up to 0.143 times per day [ConsOC4];		
Conditions affecti	ng	covers exposure up to 2 hours per event [ConsOC14]		
exposure				
Product Category		Specific Risk Management Measures and Operating Conditions		
		Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 0.05hr/event[ConsOC14];		
subcategories added: Automotive	ОС	52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of		
PC13:Fuels Liquid - subcategories added: Automotive Refueling	OC RMM	52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of		
Liquid - subcategories added: Automotive Refueling PC13:Fuels Liquid – subcategories added: Garden		52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 0.05hr/event[ConsOC14];		
Liquid - subcategories added: Automotive Refueling PC13:Fuels Liquid – subcategories added: Garden	RMM	52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 0.05hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15] Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; overs use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 750g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up		
Liquid - subcategories added: Automotive Refueling PC13:Fuels Liquid – subcategories added: Garden	RMM OC	52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 0.05hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15] Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; overs use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 750g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 2.00hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15] Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin		
Liquid - subcategories added: Automotive Refueling PC13:Fuels Liquid - subcategories added: Garden Equipment - Use PC13:Fuels Liquid (subcategories	RMM OC RMM	52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 0.05hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15] Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; overs use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 750g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 2.00hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15] Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 420.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 750g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.03hr/event[ConsOC14];		
Liquid - subcategories added: Automotive Refueling PC13:Fuels Liquid - subcategories added: Garden Equipment - Use PC13:Fuels Liquid (subcategories added): Garden Equipment -	RMM OC	52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 0.05hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15] Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; overs use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 750g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 2.00hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15] Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 420.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 750g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to		
Liquid - subcategories added: Automotive Refueling PC13:Fuels Liquid - subcategories added: Garden Equipment - Use PC13:Fuels Liquid (subcategories added): Garden Equipment -	RMM OC RMM RMM	52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 37500g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 0.05hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15] Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; overs use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 750g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 2.00hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15] Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 420.00 cm2 [ConsOC5]; for each use event, covers use amounts up to 750g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0.03hr/event[ConsOC14]; No specific RMMs developed beyond those OCs stated [ConsRMM15]		



According to the Regulation No. 1907/2006

Page 28 of 28

Product	INA MARINE EURODIESEL	Date:	2024/04/24
	INA MARINE EURODIESEL BLUE	Edition:	3

Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].	
Amounts used	
Fraction of EU tonnage used in region	0.1
Regional use tonnage (tonnes/year)	1.6e7
Fraction of Regional tonnage used locally	0.0005
Annual site tonnage (tonnes/year)	8.2e3
Maximum daily site tonnage (kg/day)	2.3e4
Frequency and duration of use	
Continuous release [FD2].	
Emission days (days/year)	365
Environmental factors not influenced by risk management	
Local freshwater dilution factor	10
Local marine water dilution factor	100
Other given operational conditions affecting environmental exposure	
Risk from environmental exposure is driven by humans via indirect exposure (prima	arily ingestion) [TCR1j].
Release fraction to air from wide dispersive use (regional only) [OOC7]	1.0e-4
Release fraction to wastewater from wide dispersive use [OOC8]	0.00001
Release fraction to soil from wide dispersive use (regional only) [OOC9]	0.00001
Conditions and measures related to municipal sewage treatment plant	•
Estimated substance removal from wastewater via domestic sewage treatment (%)	94.1
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	3.5e5
Assumed domestic sewage treatment plant flow (m ³ /d)	2000
	I .

Conditions and measures related to external treatment of waste for disposal

Combustion emissions limited by required exhaust emission controls [ETW1]. Combustion emissions considered in regional exposure assessment [ETW2].

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable regulations [ERW1].

Section 3 Exposure Estimation

3.1. Health

The ECETOC TRA tool has been used to estimate consumer exposures, consistent with the content of ECETOC Report #107 and the Chapter R15 of the IR&CSA TGD. Where exposure determinants differ to these sources, then they are indicated.

3.2. Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model [EE2].

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. G22.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. G23.

4.2. Environment

Further details on scaling and control technologies are provided in SpERC factsheet http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].