

According to the Regulation No. 1907/2006

Date:

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NON OXY GASOLINE RON <95

2018/11/22 Edition:

1

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

1.1. Product identifier

- Trade name: NON OXY B	BENZIN RON<95
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- Chemical name: Gasoline, low boiling point gasoline, unspecified
- Index no.: 649-378-00-4
- EC no.: 289-220-8
- CAS no.: 86290-81-5
- 01-2119471335-39-0091 - Registration No.:
- Product code: 1002485
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
- Relevant identified uses: Industrial: Manufacture of Substances. Distribution of Substances, Formulation & (re) packing, Use as intermediate, 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. Većeslava 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 sds@ina.hr e-mail: - Responsible person: SD & HSE Mirela Mavrinac, B.Sc. Tel. 00-385-1-6450-803 Hrvoje Raukar, B.Sc. 1.4. Emergency Telephone Number - Emergency Service Telephone Number: 112 **National Protection and Rescue Directorate** 00-385-1-3650-011 Nehajska 5, 10000 Zagreb 00-385-1-3650-084 e-mail: info@duzs.hr 00-385-1-3650-082 00-385-1-3650-083 - Medical Information Telephone Number: 00-385-1-23-48-342

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture



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

Flam. Liq. 1; H224

Skin Irrit. 2; H315

Asp. Tox. 1; H304

Repr. 2; H361d

Muta. 1B; H340

Carc. 1B; H350

STOT 3; H336

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/GHS)

Hazard pictograms:



Signal word: Danger

Hazard statements (H):	H224	Extremely flammable liquid and vapour				
	H304	May be fatal if swallowed and enters airways.				
	H315	Causes skin irritation				
	H336	May cause drowsiness or dizziness.				
	H340	May cause genetic defects				
	H350	May cause cancer				
	H361d	Suspected of damaging the unborn child.				
	H411	Toxic to aquatic life with long lasting effects.				
Precautionary statements (P):	P101	If medical advice is needed, have product container or label at hand.				
	P102	Keep out of reach of children.				
	P201	Obtain special instructions before use				
	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.				
	P273	Avoid release to the environment.				
	P280	Wear protective gloves/protective clothing/eye protection/face protection.				



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	P301+ 310	IF SWALLOWED: Immed CENTER/doctor.	diately call	a POISON
	P331	Do NOT induce vomiting.		
	P403+ 233	Store in a well-ventilated pl closed.	lace. Keep c	ontainer tightly

2.3. Other hazards

Vapours form flammable mixtures with air and explosive. Vapours are heavier than air: they can accumulate in confined spaces or in depressions, are spread at the soil and can pose risks of fire and explosion at a distance. In some circumstances, the product can accumulate static electricity in significant amounts, with the risk of shocks that may cause fire or explosions. The product does not meet the criteria for PBT or vPvB classification in Annex XIII of REACH.

3. COMPOSITION / INFORMATION ON INGREDIENTS							
- Substance:	Х			Mixture:			
- Components contributing to product hazardousness:							
Substance name		Substance ide	entification	- [%]	Classification according to Regulation (EC) No		
oubstance name	CAS no.	EC no.	Registration no. (REACH)	[76]	1272/2008 (CLP/GHS)		
Gasoline	86290-81-5	289-220-8	01-2119471335-39- 0091	≤ 100	Carc. 1B; H350 Muta. 1B; H340 Asp. Tox. 1; H304		
Benzene ⁽¹⁾	71-43-2	200-753-7	-	≤ 1	Flam. Liq. 2; H225 Carc. 1A; H350 Muta. 1B; H340 STOT RE 1; H372 Asp. Tox. 1; H304 Eye Irrit. 2; H319 Skin Irrit. 2; H315		
Toluene ⁽¹⁾	108-88-3	203-625-9	-	> 1	Flam. Liq. 2 H225 Repr. 2; H361d Asp. Tox. 1; H304 STOT RE 2 *H373 Skin Irrit. 2; H315 STOT SE 3; H336		
n-hexane ⁽¹⁾	110-54-3	203-777-6	-	> 0,1	Flam. Liq. 2; H225 Repr. 2; H361f Asp. Tox. 1; H304 STOT RE 2 *; H373 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411		

⁽¹⁾ These components were not added on purpose but they are reported as important for classification



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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 headache, dizziness, nausea 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: Take off the contaminated clothes and footwear. Thoroughly rinse the afflicted skin surface with water and soap for 10 - 15 minutes. In case of redness, immediately seek medical advice. Remove contact lenses (if present) and flush the eyes with running - after eye contact: water for at least 15 minutes. In case of irritation, blurred vision and swelling immediately seek medical attention. DO NOT invoke vomiting! Do not give anything by mouth! Always - after ingestion: 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. 4.2 Most important symptoms and effects, both acute and delayed
- after inhalation: May cause drowsiness or dizziness.
- after skin contact: Redness, dermatitis.
- after eye contact: May cause slight eye irritation.
- after ingestion: It can cause nausea or headache. 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.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

- SUITABLE: Heavy air foam (foam resistant to alcohols and polar solvents), dry powder, CO₂, water mist. When using dry powder and CO₂ (for initial fires, minor fires and indoor fires) attention is to be paid to the hazard of possible repeated flaring up of the fire after extinguishing.
- UNSUITABLE: Water jet.



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- Firefighting measures for special hazards:	Remove all ignition sourc firemen and the police. Spe the fact that there is a perm explosive mixture with the a	cial care sh nanent dang	ould be taken of er of creation of
- Special firefighting measures:	Use water mist and water spectrum exposed to heat and for protocol who are trained in fire protocol (dispersed water).	ection of pe	ople. Only those
- Special fire fighter protective equipment:	Self-sustained open-circuit apparatus (HRN EN 137). firefighters (intervention suit) 469.	Wear protect	ctive clothing for
5.2 Special hazards arising from the substance or mixture:	Vapours, being heavier than and in recesses.	air, stay clo	se to the ground
5.3 Advice for firefighters:	No data available.		
6. ACCIDENTAL RELEASE MEASURI	ES		
6.1 Personal precautions, protective equipment and emergency procedures:	Rooms at risk must be thord of prohibited entry and w sparking devices on a vis concentration of gasoline va regulations. Take measure occurrence. Provide electrica and grounding of all eq flammable gases detecto equipment. Do not inhale va Do not smoke. Stand upw personal protection equipment	vork with o ible location apours in the es against al conductive uipment. C or. Do no pours, evap ind from the	pen flame and n. Measure the e air, in line with static electricity ty by connecting ontrol area by t use electric oration. e spill site. Use
6.2 Environmental precautions:	Define the risk area and pre- into watercourses, canals, d digging out a protective dito with dry sand, earth or clay the area. In case of major Service by dialling 112.	rainage sys h, fencing i . Provide go	tems and soil by t with bags filled od ventilation of
6.3 Methods for cleaning-up and recovery:	Use safety-type pump for r tank into an empty tank / ta remainder from the ground (sawdust, mineral adsorb materials). Place the wa contaminated surface soil to be stored in well-vented done by legal entities for di authorized by the Ministry protection.	nk truck / ta d using ad ents, and aste materia level into w d rooms un sposal of ha	nk car. Remove sorption agents other inert I and removed ell-closed tanks til disposal to be azardous waste,

In case of gasoline spill in working area, the fluid must be removed and the surface washed with soapy water and then rinsed with clean water.



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- Additional warnings	:	Highly inflammable fluid a respect to release point.	nd vapours! Si	and upwind with
6.4 Reference to othe	r sections:	See items 8 and 13.		
7. HANDLING AND ST	FORAGE			
- Handling				
7.1 Precautions for sa handling:	afe			
7.1.1 Safe handling ad	ignitic perfor ventila worki	far from heat sources an on sources. Re-loading i.e. med at the sites designed fo ation/outlet. Use the equip ng order. Do not use sparkin room/area and storage ar	. unloading/lo r the purpose, ment and de ng tools.	ading shall be ensuring the ai evices in good
	endar	meable floor, resistant to ngered by explosive atmos ance of <1 M Ω within the sy icity.	phere shall h	
	meas ioniza	ures shall be taken against s tion, use of antistatic mate 65%, bypassing the stat	static electricit rial, maintain	ng air humidity
7.1.2 Advice on genera occupational hygiene:	keepii clothe workp rubbe soake	bited smoking, eating, drinking of food in areas where the s shall be kept separately place. Obligatory wearing of r boots, protective gloves a ed or torn clothes must be contact with skin and eyes.	product is ha from the wo the prescribe and goggles.	ndled. Persona ork clothes and d work clothes Extremely dirty
7.2 Conditions for sat	fe storage, inc	luding any incompatibilitie	s	
- SUITABLE:	room/area v against the s	sealed tanks, properly manuf entilation and appropriate tatic electricity charge. Make lf-supporting tanks.	temperature.	Take measures
- TO BE AVOIDED:	that may car	e same room/area with othe use fire. Use of sparking to sparks in storage area.		
- Packaging materials	5			
- RECOMMENDED:	Original as certification.	made by the tank/contain	ner manufact	urer with valio
- NOT SUITABLE:	Any other.			
7.3 Specific end use(s): No data av	ailable.		



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION						
8.1. Control parameters						
Hazardous substance (CAS No.)	Occupational exposure limit values/short term values (OEL/STEL)		Biological limit values			
	ppm	mg/m³				
Gasoline, low boiling point gasoline - unspecified (86290-81-5)	300/500	-/-	no data			
benzene (71-43-2)	1/-	3,25/-	28 μg /L (0,36 μmol/L) – blood immediately at the end of work shift 46 μg/g creatinine* (21,7 μmol/mol creatinine*) – urine at the end of work shift			
n-hexane (110-54-3)	20/-	72/-	150 μg/L (1,74 μmol/L) – blood during exposure 1,66 μmol/L (40 ppm) – in extremely exhaled air during exposure			
toluene (108-88-3)	50/192	100/384	1,0 mg/L (10,85 µmol/L) – blood immediately at the end of work shift 0,83 µmol/L (20 ppm) – in extremely exhaled air during exposure			

- Monitoring procedures:

8.2. Exposure controls

- Summary of risk management measures: Measurement of benzene vapours concentration in the air, in line with regulations.

8.2.1 Occupational exposure controls



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- 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 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, and ventilation system. Do not swallow. If swallowed, seek medical attention.

8.2.2 Personal protective equipment Personal protective equipment shall comply with national regulations and international standards.

- respiratory tract protection:	In concentrations exceeding 100 ppm obligatory wearing of protective masks for the whole face (HRN EN 136) with filter 'A' (HRN EN 14387). In concentrations exceeding 3000 ppm obligatory use of self - sustained open-circuit compressed - air breathing apparatus (HRN EN 137).			
- hand protection:	Protective gloves of resistant and impermeable material. At full contact gloves of nitrile rubber 0,40 mm thick, at contact with drops gloves of nitrile rubber 0,11 mm thick (HRN EN 374). At shorter contact (4 h) PVA gloves may be used (polyvinyl alcohol).			
- eye protection:	Protective goggles or guard (HRN EN 166) at lower concentrations, protective shields at higher concentrations.			
- skin and body protection:	Use chemical resistant gloves, clothing and apron (where there is a risk of splashing).			
- Special hygienic and safety precautions:	Maintaining regular stipulated hygiene for work with hazardous substances. Take off the contaminated clothes and footwear. Equipment and devices shall be regularly inspected and maintained with running water. When handling this product, smoking, eating and drinking are prohibited. After each interruption of work, washing of hands is obligatory.			
823 Environmental exposure controls				

Not applicable.

8.2.3 Environmental exposure controls

- Summary of risk management measures: No data available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- state: liquid
- colour: colourless
- odour: characteristic of gasoline
- odour threshold: No data available.
- pH value (indicate conc. and temp.):
- Melting point/freezing point: °C No data.



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SAFETY DATA SHEET

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Product	NON OXY GASOLINE		20N <95	Date: Edition:	2018/11/22 1
- boiling point/boiling range:	o	С	≤ 210		
- flash point:	0	С	<0 (from literature)	
- Evaporation rate:			No data.		
- flammability (solid, gas):			Need to be heated	d to ignite.	
- explosive limits:	v	ol. %	0,6 - 8 (from litera	ture)	
- vapour pressure :	k	Pa	45 – 60 (May 1 st – 60 – 80 (Novembe	•	,
- vapour density at 15°C:	k	g/m³	No data.		
- relative density:			No data.		
- density at 15°C:	k	g/m³	720,0 – 775,0		
- solubility (indicate solvent):	g	ı/L	No data.		
- Solubility in water:	g	ı/L	Insoluble.		
- partition coefficient n-octan	ol / water lo	ogPow	Not applicable.		
- auto ignition temperature:	0	С	280 - 470 (from lite	erature)	
- disintegration temperature:	0	С	No data.		
- viscosity (kinematic) at 40°	C: n	nm²/s	No data.		
- oxidizing properties:			Not applicable.		
- conductivity:	p	S/m	No data.		
9.2 Other information:	Ν	lo data.			

10. STABILITY AND REACTIVITY

10.1 Reactivity:	Stable when the prescribed storage and use requirements are met.
10.2 Chemical stability:	Stable when the prescribed storage and use requirements are met.
10.3 Possibility of hazardous reactions:	No potentially hazardous reactions known.
10.4 Conditions to avoid:	Keep away from heat, open flame, sparks.
10.5 Incompatible materials:	Halogens, strong acids, bases and 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).

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

- Acute toxicity

- oral (LD₅₀):
- > 5000 mg/kg _{body weight} (rat)
- inhalation (LC₅₀): > 5610 mg/m³ air (analytically) (rat)
- dermal (LD₅₀): > 2000 mg/kg $_{body weight}$ (rabbit)



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- Irritation/Corrosion					
- skin:	Redness	s, dermatitis (H315).			
- eyes:	No data	available.			
- respiratory tract:	May cau	se lung damage if ingested.			
- Sensitisation					
- skin:	No data availat	ble.			
 respiratory tract: 	No data availat	ble.			
 Aspiration hazard: 	May be fatal if s	swallowed and enters airway	/s. (H304).		
- Other classic effects unconsciousness, pa metabolites, etc.):		May cause drowsiness or	dizziness (H	1336).	
 Permanent effects d chronic exposure: 	ue to acute or	No data available.			
- Special effects					
- mutagenicity:		May cause heritable gene	tic damage	(H340).	
- carcinogenicity:		May cause cancer (H350)	•		
- fertility decrease:		No data available.			
- harmful effect on unb	orn child:	No data available.			
- toxicity to reproduction	on:	Suspected of damaging the unborn child (H361d).			
- other (e.g. endocrine	disruptors):	No data available.			
- STOT (SE):		May cause drowsiness or	dizziness (H	1336).	
- STOT (RE):		No data available.			
 Prohibitions and res 	strictions:	No data available.			
- Other:		No data available.			
12. ECOLOGICAL INF	ORMATION				
12.1. Toxicity					
- to aquatic organisms	:	$EL_{50}=4,5$ mg/l (Daphnia magna), $EL_{50}=3,1$ mg/ (algae), $LL_{50}=8,2$ mg/l (fish)			
- to ground organisms	:	No data available.			
- to plants and land an	imals:	No data available.			

- 12.2. Persistence and degradability
- biodegradation:
- other degradation processes:
- degradation in wastewater:

12.3. Bioaccumulative potential

- bio-concentration factor (BCF):

Not easily biodegradable.

No data available.

Insoluble in water. Forms surface film that quickly evaporates, but if large quantities are spilled, may have harmful effect on aquatic organisms due to lack of oxygen.

No data available.



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12.4. Mobility in soil		od: No data a	available.
 Known or predicted distribution in environmental compartments: 	No data available.		
- surface tension:	No data available.		
- absorption/desorption:	No data available.		
- other physical and chemical properties:	See item 9.		
12.5. Results of PBT and vPvB assessm	nent		
- data from chemical safety report:	Product does not ful classification defined Regulation.		
12.6. Other adverse effects:	See item 9.		
13. DISPOSAL CONSIDERATIONS			
13.1 Waste treatment methods:	Waste shall be handed for waste collection, dis the waste shall be recov	posal or reco	
- Waste codes:	13 07 02*		
- Waste from residues:	There is no classic was case of unintentional r Section 6.		
- Contaminated packaging:	Not applicable.		
- Relevant provisions:	Act on sustainable wast Waste Catalogue, Ordin		
14. TRANSPORT INFORMATION			
14.1 UN number:	1203		
14.2 UN proper shipping name:	GASOLINE or PETE	ROL	
14.3 Transport hazard class(es)			
ADR/RID/ADN/ICAO/IATA:	3		
IMDG:	3		
14.4 Packing group			
ADR/RID/ADN/IMDG/ICAO/IATA:	П		
14.5 Environmental hazards			
ADR, RID, ADN, ICAO/IATA:	Toxic to aquatic life	with long lasti	ng effects.
IMDG:	Maritime pollutant		
14.6 Special precautions for user			
ADR	RID		
Transport category: 2	Transport category:	2	
Vehicle for tank carriage: FL	Tank code: LGBF		
Tank code: LGBF	Label: 3		



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Tunnel restriction code: (D/E)	Classification of	ode: F1	
Label: 3	Hazard identifi	cation: 33	
Classification code: F1	Special provisi	ons: 243, 534, TU	9.
Hazard identification: 33			
Special provisions: 243, 534, 363, 664, TU9, S2, S20.			
ADN	IMDG		
Label: 3	Subsidiary risk	: maritime pollutan	ıt
Additional requirements/Remarks: 14	Group of the ca	argo: E	
Dangers: 3+N2+CMR+F	Special provisi	ons: 243, 363, TP ²	1.
Equipment required: PP, EP, EX, TOX, A.	EmS: F-E, S-E		
Classification code: F1	Segregation gr	oup: E	
Carriage permitted: yes			
Type of tank vessel: N/2			
Anti-explosion protection required: yes			
Maximum degree of filling in %: 97			
ICAO			
Label: 3			
Cargo IMP code: 3H			
Passenger and cargo aircraft: yes			
Cargo aircraft only: 60L			
ERG code: E2			
14.7 Transport in bulk condition according Codex	to MARPOL Co	onvention, Annex	II and IBC
Trade name:		Not applicable.	
Pollution category (according to MARPOL, An	inex II):	Not applicable.	
Vessel type (according to IBC Code):		Not applicable.	
Special and operative requirements (accordin	a to IBC Code).	Not applicable	

Special and operative requirements (according to IBC Code): Not applicable.



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15. REGULATORY INFORMATION

15. REGULATORY INFORMATION				
15.1 Safety, health and environment mixture	al regulations/legisla	tion speci	fic for t	he substance or
- Applicable EU regulations:	EU Regulation No. 1 European Parliame Regulation (EU) 20 Regulation (EC) N Parliament and of Evaluation, Authoriss (REACH); EU Re European Parliamen on substances tha Regulation No 689 and of the Council of and import of dange 850/2004 of the Euro of 29 April 2004 Directive 2008/98/E0 the Council of 19 repealing certain Dir	nt and th 15/830 of No 1907/2 the Cour- sation and gulation at and of the at deplete 9/2008 of th 17 June 2 erous chen opean Parl on persis C of the Eu Novembe	e Cour 28 May 2006 of ncil on Restrict No. 200 e Counci the Eurco 008 conc nicals; E iament a stent or iropean l	cil; Commission 2015 amending the European the Registration, ion of Chemicals 37/2000 of the il of 29 June 2000 zone layer; EU opean Parliament cerning the export U Regulation No and of the Council ganic pollutants; Parliament and of
- Applicable national regulations:	Chemicals Act; Or dangerous chemica limit values and Sustainable Waste Catalogue, Ordinand	dinance o ls exposur biological Manageme	e during limit ent, Ord	work, exposure values; Act on inance on Waste
- Authorization information: -				
- Restriction information: -				
- Chemical Safety Assessment carrie	ed out (CSA):	YES	X	NO

16. OTHER INFORMATION

Revision indicators

Section:	Subject of change:
First edition.	

Full text of H- phrases, EUH- and P-phrases

-	•
H224	Extremely flammable liquid and vapour
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H361d	Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects
P101	If medical advice is needed, have product container or label at hand.



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P201	Obtain special instructions before use		
P210	Keep away from heat, hot surfaces, sparks, o sources. No smoking.	pen flames a	and other ignition
P233	Keep container tightly closed.		
P273	Avoid release to the environment		
P280	Wear protective gloves/protective clothing/eye	protection/fac	ce protection.
P301+P310	IF SWALLOWED: Immediately call a POISON	CENTER/doo	ctor.
P331	DO NOT induce vomiting.		
P403+P233	Store in a well-ventilated place. Keep container	tightly close	d.
Abbreviations a	and acronyms:		
ADN	European Agreement concerning the Internat Goods by Inland Waterways	ional Carriaç	ge of Dangerou
ADR	European Agreement concerning the Internat Goods by Road	ional Carriaç	ge of Dangero
CAS number	Chemical Abstract Service number		
CLP	Classification, Labelling and Packaging of subs	tances and n	nixtures
CSA	Chemical Safety Assessment		
CSR	Chemical Safety Report		
EC number	European Community number for identificat commercially available in the EU	ion of chem	nical substanc
ΙΑΤΑ	International Air Transport Association		
ICAO	International Civil Aviation Organization		
IMDG	International Maritime Dangerous Goods Code	transport	
LC50	Lethal concentration for 50% of tested organisr	ns	
LD50	Lethal concentration for 50% of tested concentration)	organisms	(medium leth
OIN	Oil industry notes		
PBT	Persistent, bioaccumulative and toxic		
REACH	Registration, Evaluation, Authorisation and Res	striction of Ch	emicals
RID	Regulations Concerning the International Trans Rail	sport of Dang	gerous Goods I
STOT (SE)	Specific Target Organ Toxicity (Single Exposur	e)	
STOT (RE)	Specific Target Organ Toxicity (Repeated Expo	sure)	
UVCB	Chemical Substances of Unknown or Vari Reaction Products and Biological Materials	able Compo	sition, Comple
vPvB	Very persistent and very bioaccumulative		



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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. Hazard classification and labelling of petroleum substances in the EEA, Concawe 2017.
- 4. Handbook Identified Uses of Petroleum Substances, Concawe, July 2018

APPENDIX: EXPOSURE SCENARIOS ACCORDING TO CHEMICAL SAFETY REPORT



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Product

NON OXY GASOLINE RON <95

Edition: 11

IU	Category	Identified use name	Sector	ES Number	Sector of Use (SU)	Product Category (PC)	Process Category (PROC)	Environmental Release Category (ERC)	Specific Environmental Release Category (SpERC)
1	Gasoline, Low boiling point – unspecified	01 – Manufacture of Substances (classified as H340 and/or H350 and/or H361;(containing 0% to 1% benzene)	Industrial	ES 9.1.1b	3, 8, 9	NA	1, 2, 3, 8a, 8b, 15	1	ESVOC SpERC 1.1.v1
2	Gasoline, Low boiling point – unspecified	01a – Distribution of substances (classified as H340 and/or H350 and/or H361; (containing 0% to 1% benzene)	Industrial	ES 9.12.1a	3	NA	1, 2, 3, 8a, 8b, 15	4, 5, 6a, 6b, 6c, 6d, 7	ESVOC SpERC 1.1b.v1
3	Gasoline, Low boiling point – unspecified	02 – Formulation & (re) packing of substances (classified as H340 and/or H350 and/or H361; (containing 0% to 1% benzene)	Industrial	ES 02		NA	1, 2, 3, 8a, 8b, 15	2	ESVOC SpERC 2.2.v1
4	Gasoline, Low boiling point – unspecified	01b – Use as intermediate (classified as H340 and/or H350 and/or H361; (containing 0% to 1% benzene))		ES 01b	8, 9	NA	1, 2, 3, 8a, 8b, 15	6a	ESVOC SpERC 6.1a.v1
5	Gasoline, Low boiling point – unspecified	12a – Use as a fuel: Industrial (classified as H340 and/or H350 and/or H361;(containing 0% to 1% benzene))		ES 9.10.1b	3	NA	1, 2, 3, 8a, 8b, 16	7	ESVOC SpERC 7.12a.v1

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6	Gasoline, Low boiling point – unspecified	12b – Use as a fuel: Professional (classified as H340 and/or H350 and/or H361; (containing 0% to 1% benzene))	nal	ES 9.11.1b	22	NA	1, 2, 3, 8a, 8b, 16	9a, 9b	ESVOC SpERC 9.12b.v1
7	Gasoline, Low boiling point – unspecified	12a – Use as a fuel: Industrial (classified as H340 and/or H350 and/or H361; (containing 0% to 1% benzene))		ES 9.12.1b	21	13	NA	9a, 9b	ESVOC SpERC 9.12c.v1



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Product

NON OXY GASOLINE RON <95 - EXPOSURE</th>Date:2018/11/22CONTROLSEdition:1

1. MANUFACTURE OF NON OXY GASOLINE RON <95 - INDUSTRIAL

Section 1 Exposure Scena as H350 and/or H340 and/o		e, Low boiling point – unspecified that is classified	
Title	, (••••••		
Manufacture of substances			
Use Descriptor			
Sector(s) of Use		3, 8, 9	
Process Categories		1, 2, 3, 8a, 8b, 15	
		Further information on the mapping and allocation of PROC codes is contained in Table 9.1	
Environmental Release Cate		1	
Specific Environmental Rele	ease Category	ESVOC SpERC 1.1.v1	
Processes, tasks, activitie	s covered		
contained systems. Includes	s incidental exposur ed laboratory activiti	ess chemical or extraction agent within closed or es during recycling/ recovery, material transfers, ies, maintenance and loading (including marine	
See Section 3.			
Section 2 Operational con	ditions and risk m	nanagement measures	
·			
Section 2.1 Control of wor	rker exposure		
Product characteristics			
Physical form of product		ssure > 10 kPa at STP OC5	
Concentration of substance		e substance in the product up to 100 % (unless stated	
in product	differently) G13		
Amount used	Not applicable		
Frequency and duration of use/exposure		sures up to 8 hours (unless stated differently) G2	
Human factors not influenced by risk management	Not applicable		
Other Operational		ed out at elevated temperature (> 20°C above ambient	
Conditions affecting			
exposure	hygiene is implem		
Contributing Scenarios		nagement Measures and Operating Conditions	
General Measures (skin irritants). <mark>G19.</mark>	skin contact. Wear likely. Clean up co Wash off skin c	contact with product. Identify potential areas for indirect gloves (tested to EN374) if hand contact with substance ntamination/spills as soon as they occur. ontamination immediately. Provide basic employee / minimise exposures and to report any skin effects that	





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Product	NON OXY GASOLINE RON <95 – EXPOSU	RE Date:	2018/11/22
	CONTROLS	Edition:	1
		Edition.	•
General Measures (carcinogens). G18.	Consider technical advances and process upgr for the elimination of releases. Minimise expose closed systems, dedicated facilities and suita ventilation. Drain down systems and clear tran containment. Clean / flush equipment, maintenance.	ure using measures ble general / local hsfer lines prior to b	such as exhaust preaking
	Where there is potential for exposure: Restric provide specific activity training to operators to suitable gloves (tested to EN374) and contamination; wear respiratory protection w certain contributing scenarios; clear up spills wastes safely.	o minimise exposur coveralls to preve hen its use is iden	es; wear ent skin itified for
	Regularly inspect, test and maintain all control Consider the need for risk based health surveil	lance. <mark>G20</mark> .	
CS15 General exposures	Handle substance within closed systems. E47.		50
(closed systems). + CS56 With sample collection.	Sample via a closed loop or other system inter Wear suitable gloves tested to EN374. PPE15.	•	ure. <u>E8</u> .
CS15 General exposures (closed systems). + CS54 Continuous process.	Handle substance within a closed system. E4		
CS15 General exposures	Handle substance within a closed system. E4		
(closed systems). + CS55 Batch process.	Ensure operation is undertaken outdoors. E69.		
CS36 Laboratory activities	to minimise exposure. E12.		
CS14 Bulk transfers	Ensure material transfers are under containme E66.	nt or extract ventilat	ion.
CS39 Equipment cleani	ng Drain down and flush system prior to equipmer	nt break-in or mainte	enance.
and maintenance	E55. Retain drain downs in sealed storage pending recycle. ENVT4. Clear spills immediately. C&H13. Wear chemically resistant gloves (tested to I 'basic' employee training. PPE16.	disposal or for sub	osequent
and maintenance	E55. Retain drain downs in sealed storage pending	disposal or for sub	osequent
	recycle. ENVT4. Clear spills immediately. C&H13. Wear chemically resistant gloves (tested to f 'basic' employee training. PPE16.	EN374) in combina	tion with
CS67 Storage.	Store substance within a closed system. E84		
	n the basis for the allocation of the identified (DCs and RMMs is	
contained in Appendices Section 2.2 Control of er			
Product characteristics	CB [PrC3]. Predominantly hydrophobic [PrC4a].		
Amounts used			
Fraction of EU tonnage us	ed in region	1	
Regional use tonnage (ton		.1 .12E2	
Fraction of Regional tonna	÷ ;	.12E2	
Annual site tonnage (tonne	č	.2 .0E2	
Maximum daily site tonnage		.0E2	
Frequency and duration		.0_0	
Continuous release [FD2].			





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Product

NON OXY GASOLINE RON <95 – EXPOSURE Date: CONTROLS Edition:

Environmental factors not influenced by risk management	
Local freshwater dilution factor	10
Local marine water dilution factor	100
Other given operational conditions affecting environmental exposu	re
Release fraction to air from process (initial release prior to RMM)	1.0
Release fraction to wastewater from process (initial release prior to RMM)	0.00003
Release fraction to soil from process (initial release prior to RMM)	0
Technical conditions and measures at process level (source) to pre	vent release
Common practices vary across sites thus conservative process release e	
Technical onsite conditions and measures to reduce or limit discha releases to soil	rges, air emissions and
Prevent discharge of undissolved substance to or recover from wastewa	ter [TCR14]. Risk from
environmental exposure is driven by humans via indirect exposure (prima	
If discharging to domestic sewage treatment plant, no onsite wastewater	
Treat air emission to provide a typical removal efficiency of (%)	70
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency \geq (%)	4.4
If discharging to domestic sewage treatment plant, provide the required	0
onsite wastewater removal efficiency of \geq (%)	
Organisation measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils [OMS2]. Sludge should be reclaimed [OMS3].	incinerated, contained or
Conditions and measures related to municipal sewage treatment pl	ant
Estimated substance removal from wastewater via domestic sewage treatment (%)	95.5
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	95.5
Maximum allowable site tonnage (M _{Safe}) (kg/d)	2.9E4
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	local and/or national
regulations [ETW3].	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable I	ocal and/or national
regulations [ERW1].	
Additional information on the basis for the allocation of the indentif	ied 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.
G21.	
3.2. Environment	el eve equite the Detrestation
The Hydrocarbon Block Method has been used to calculate environment model [EE2].	ai exposure with the Petrofisk



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Product

NON OXY GASOLINE RON <95 – EXPOSURE CONTROLS

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1

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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].



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Product NON OXY	GASOLINE RON <95 – EXPOSURE CONTROLS	Date: Edition:	2018/11/22 1
2. DISTRIBUTION OF NON OXY	GASOLINE RON <95 - INDUSTR	RIAL	
Section 1 Exposure Scenario Title and/or H350 and/or H361; (containing	Gasoline, Low boiling point – unspecif g 0% to 1% benzene)	ied that is class	ified as H340
Title			
	sified as H340 and/or H350 and/or H3	61; (containing	0% to 1%
benzene))			
Use Descriptor			
Sector(s) of Use			
Process Categories		1, 2, 3, 8a, 8b,	
Environmental Release Categories		4, 5, 6a, 6b, 60	
Specific Environmental Release Cat		ESVOC SpER	C 1.1b.v1
Processes, tasks, activities cover			
	sel/barge, rail/road car and IBC loadii		
	nce, including its sampling, storage	, unloading, an	d associated
laboratory activities. Excludes emiss	ions during transport.		
Assessment Method			
See Section 3.			
Section 2 Operational conditions			
Section 2.1 Control of worker exp	osure		
Product characteristics			
Physical form of product	Liquid		
Vapour pressure	Liquid, vapour pressure > 10 kPa at	STP OC5.	
Concentration of substance in	Covers percentage substance in the	product up to 1	00 % (unless
product	stated differently) G13.		•
Frequency and duration of	Covers daily exposures up to 8 hou	urs (unless state	ed differently)
use/exposure	G2.		
Other Operational Conditions	Assumes use at not more than 20°C		
affecting exposure	unless stated differently. G15. Assur		ic standard of
Contributing Coopering	occupational hygiene is implemente		4:m m
Contributing Scenarios	Specific Risk Management Measu Conditions	ires and Opera	ting
General Measures (skin irritants). G19. General Measures (carcinogens).	Avoid direct skin contact with produ- indirect skin contact. Wear gloves contact with substance likely. Clea soon as they occur. Wash off skin Provide basic employee training to p and to report any skin effects that m Consider technical advances and	 (tested to EN n up contamination contamination prevent / minimi ay develop. E3 	1374) if hand ation/spills as immediately. se exposures
G18.	automation) for the elimination of r using measures such as closed sys suitable general / local exhaust ver and clear transfer lines prior to br flush equipment, where possible, p there is potential for exposure: Restr provide specific activity training exposures; wear suitable gloves (ter to prevent skin contamination; wear its use is identified for certain con spills immediately and dispose of inspect, test and maintain all conta need for risk based health surveillar	releases. Minim tems, dedicated tilation. Drain of eaking containr prior to mainten ict access to au to operators sted to EN374) r respiratory pro tributing scena of wastes safe prol measures.	ise exposure facilities and lown systems nent. Clean / ance. Where thorised staff; to minimise and coveralls otection when rios; clear up ly. Regularly



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Product NON OX	GASOLINE RON <95 – EXPOSURI CONTROLS	E Date: Edition:	2018/11/22 1
CS15 General exposures (closed systems). + CS56 With sample collection.	Handle substance within closed closed loop or other system intende suitable gloves tested to EN374. P	d to avoid exposu	
CS15 General exposures (closed systems). OC9 Outdoor.	Handle substance within closed sy	stems. E47.	
CS2 Process sampling	Sample via a closed loop or other s	system to avoid ex	kposure. E8.
CS36 Laboratory activities.	Handle within a fume cupboard or implement suitable equiva methods to minimise exposure. E12.		
CS501 Bulk closed loading and unloading.	Ensure material transfers are u ventilation. E66.	nder containmen	t or extract
CS39 Equipment cleaning and maintenance	Drain down and flush system pr maintenance. E55. Retain drain do disposal or for subsequent re immediately. C&H13. Wear chemic EN374) in combination with 'basic'	wns in sealed stor cycle. ENVT4. cally resistant glov	age pending Clear spills es (tested to
CS67 Storage.	Ensure operation is undertaken ou within a closed system. E84.		
Section 2.2 Control of environme			
Product characteristics			
Substance is complex UVCB. [PrC3] Predominantly hydrophobic. [PrC4a		
Amounts used			
Fraction of EU tonnage used in regi	on	0,1	
Regional use tonnage (tonnes/year)		11 000 000	
Fraction of Regional tonnage used I		0,002	
Annual site tonnage (tonnes/year)		21 000	
Maximum daily site tonnage (kg/day	0	71 000	
Frequency and duration of use	/		
Continuous release. [FD2]			
Emission days (days/year)		300	
Environmental factors not influen	ced by risk management		
Local freshwater dilution factor		10	
Local marine water dilution factor		100	
	is affecting environmental exposur		
Release fraction to air from process		0,001	
Release fraction to wastewater from RMM)		0.000001	
Release fraction to soil from process	s (initial release prior to RMM)	0.00001	
	es at process level (source) to prev	vent release	
	s thus conservative process release e		CS1]
	neasures to reduce or limit dischar	-	-
Risk from environmental exposure is	s driven by freshwater. [TCR1a]		
No wastewater treatment required [
Treat air emission to provide a typic		90	
Treat onsite wastewater (prior to red		0,0	
the required removal efficiency >= (%)		
If discharging to domestic sewage to onsite wastewater removal efficience	y of >= (%)	0,0	
Organisation measures to preven	t/limit release from site		





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Product NON OXY GASOLINE RON <95 – EXPOSURE CONTROLS	Date: Edition:	2018/11/22 1
Do not apply industrial sludge to natural soils. [OMS2] Sludge should be ir reclaimed. [OMS3]	ncinerated, conta	ined or
Conditions and measures related to municipal sewage treatment plan	nt	
Estimated substance removal from wastewater via domestic sewage treatment (%)	96,1	
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	96,1	
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (tonnes/d)	2600	
Assumed domestic sewage treatment plant flow (m ³ /d)	2000	
Conditions and measures related to external treatment of waste for d	lisposal	
External treatment and disposal of waste should comply with applicable loc [ETW3]	al and/or nationa	I regulations.
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable loc [ERW1]	al and/or nationa	l regulations.
Section 3 Exposure Estimation		
3.1. Health		
The ECETOC TRA tool has been used to estimate workplace exposures G21.	s unless otherwi	se indicated.
The ECETOC TRA tool has been used to estimate workplace exposures G21. 3.2. Environment		
The ECETOC TRA tool has been used to estimate workplace exposures G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate enviro PETRORISK model. [EE2]	onmental exposi	
The ECETOC TRA tool has been used to estimate workplace exposures G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate enviro PETRORISK model. [EE2] Section 4 Guidance to check compliance with the Exposure Scenario	onmental exposi	
The ECETOC TRA tool has been used to estimate workplace exposures G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate enviro PETRORISK model. [EE2] Section 4 Guidance to check compliance with the Exposure Scenario 4.1. Health	onmental exposi	ure with the
The ECETOC TRA tool has been used to estimate workplace exposures G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environ 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 w Measures/Operational Conditions outlined in Section 2 are implement Management Measures/Operational Conditions are adopted, then users managed to at least equivalent levels. G23. Available hazard data do not er for dermal irritant effects. G32. Available hazard data do not enable to carcinogenic effects. G36. Risk Management Measures are based on qu G37.	hen the Risk lated. G22. Where the derivation of for a DNEL to be	Management e other Risk hat risks are on of a DNEL a DNEL for e established
The ECETOC TRA tool has been used to estimate workplace exposures G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environ 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 w Measures/Operational Conditions outlined in Section 2 are implement Management Measures/Operational Conditions are adopted, then users managed to at least equivalent levels. G23. Available hazard data do not enable to carcinogenic effects. G33. Available hazard data do not support the need for other health effects. G36. Risk Management Measures are based on qu	hen the Risk lated. G22. Where the derivation of for a DNEL to be	Management e other Risk hat risks are on of a DNEL a DNEL for e established
The ECETOC TRA tool has been used to estimate workplace exposures G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environ 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 w Measures/Operational Conditions outlined in Section 2 are implement Management Measures/Operational Conditions are adopted, then users managed to at least equivalent levels. G23. Available hazard data do not er for dermal irritant effects. G32. Available hazard data do not enable to carcinogenic effects. G36. Risk Management Measures are based on qu G37.	hen the Risk line ted. G22. Where should ensure to able the derivation for a DNEL to be ualitative risk cha e applicable to all agement measure te/offsite technologian be achieved aling and control	Management e other Risk hat risks are on of a DNEL a DNEL for e established racterisation.
The ECETOC TRA tool has been used to estimate workplace exposures G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environ 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 we Measures/Operational Conditions outlined in Section 2 are implement Management Measures/Operational Conditions are adopted, then users managed to at least equivalent levels. G23. Available hazard data do not err for dermal irritant effects. G32. Available hazard data do not enable to carcinogenic effects. G33. Available hazard data do not support the need for other health effects. G36. Risk Management Measures are based on que G37. 4.2. Environment Guidance is based on assumed operating conditions which may not be scaling may be necessary to define appropriate site-specific risk man Required removal efficiency for wastewater can be achieved using onsi alone or in combination. [DSU2] Required removal efficiency for air ca technologies, either alone or in combination. [DSU3] Further details on sca	hen the Risk line ted. G22. Where should ensure to able the derivation for a DNEL to be ualitative risk cha e applicable to all agement measure te/offsite technologian be achieved aling and control	Management e other Risk hat risks are on of a DNEL a DNEL for e established racterisation.



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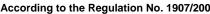
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Product

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3. FORMULATION & (RE) PACKING OF NON OXY GASOLINE RON <95 - INDUSTRIAL

Section 1 Exposure Scenario Tit H340 and/or H350 and/or H361; (o		Low boiling point – unspecified that is classified as 6 to 1% benzene)	
Title	-		
02 - Formulation & (re)packing of	substances a	nd mixtures (classified as H340 and/or H350 and/or	
H361; (containing 0% to 1% benz	zene))		
Use Descriptor			
Sector(s) of Use			
Process Categories		1, 2, 3, 8a, 8b, 15	
Environmental Release Categorie	es	2	
Specific Environmental Release (ESVOC SpERC 2.2.v1	
Processes, tasks, activities cov			
operations, including storage, m extrusion, large and small scale activities.	aterials trans	substance and its mixtures in batch or continuous sfers, mixing, tableting, compression, palletisation, naintenance, sampling and associated laboratory	
Assessment Method			
See Section 3.			
Section 2 Operational condition		nanagement measures	
Section 2.1 Control of worker e	xposure		
Product characteristics			
Physical form of product	Liquid		
Vapour pressure	Liquid, vap	our pressure > 10 kPa at STP OC5.	
Concentration of substance in	Covers per	rcentage substance in the product up to 100 %	
product		ted differently) G13.	
Frequency and duration of	Covers dail	y exposures up to 8 hours (unless stated differently)	
use/exposure	G2.		
Other Operational Conditions		use at not more than 20°C above ambient	
affecting exposure		e, unless stated differently. G15. Assumes a good	
		ard of occupational hygiene is implemented G1.	
Contributing Scenarios	Conditions		
General Measures (skin irritants). G19.	for indirect contact with soon as the Provide ba exposures	tt skin contact with product. Identify potential areas skin contact. Wear gloves (tested to EN374) if hand n substance likely. Clean up contamination/spills as ey occur. Wash off skin contamination immediately. asic employee training to prevent / minimise and to report any skin effects that may develop. E3	
General Measures (carcinogens). G18.	Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general / local exhaust ventilation. Drain down systems and clear transfer lines prior to breaking containment. Clean / flush equipment, where possible, prior to maintenance.		
	authorised minimise e and covera protection	re is potential for exposure: Restrict access to staff; provide specific activity training to operators to xposures; wear suitable gloves (tested to EN374) Ills to prevent skin contamination; wear respiratory when its use is identified for certain contributing clear up spills immediately and dispose of wastes	





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Regularly inspect, test and maintain all control measu Consider the need for risk based health surveillance. G20.CS15 General exposures (closed systems). + CS56 WithHandle substance within closed systems. E47. Sample v closed loop or other system intended to avoid exposure.	
(closed systems). + CS56 With closed loop or other system intended to avoid exposure.	
sample collection. Wear suitable gloves tested to EN374. PPE15.	
CS15 General exposures Handle substance within a closed system. E47. (closed systems). OC9 Outdoor	
CS2 Process sampling Sample via a closed loop or other system intended to a exposure. E8.	ivoid
CS36 Laboratory activities Handle within a fume cupboard or implement suit equivalent methods to minimise exposure. E12.	able
CS14 Bulk transfers Ensure material transfers are under containment or exventilation. E66.	
CS8 Drum/batch transfers Ensure material transfers are under containment or exventilation. E66.	
CS39 Equipment cleaning and maintenance Drain down and flush system prior to equipment break-i maintenance. E55. Retain drain downs in sealed stor pending disposal or for subsequent recycle. ENVT4. Clear s immediately. C&H13. Wear chemically resistant gloves (te to EN374) in combination with 'basic' employee train PPE16.	rage spills sted
CS67 Storage. Store substance within a closed system. E84. Wear suit gloves tested to EN374. PPE15.	able
Section 2.2 Control of environmental exposure	
Product characteristics	
Substance is complex UVCB. [PrC3] Predominantly hydrophobic. [PrC4a] Amounts used	
Fraction of EU tonnage used in region 0,1	
Regional use tonnage (tonnes/year) 1,0E+0	7
Fraction of Regional tonnage used locally 3,0E-03	
Annual site tonnage (tonnes/year) 3,0E+0	
Maximum daily site tonnage (kg/day) 1,0E+0	
Frequency and duration of use	
Continuous release. [FD2]	
Emission days (days/year) 300	
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	
Release fraction to air from process (after typical onsite RMMs, consistent with EU 2,5E-02	2
Solvent Emissions Directive requirements)	_
Release fraction to wastewater from process (initial release prior to RMM) 6,4E-04	4
Release fraction to soil from process (initial release prior to RMM) 0.0001	
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used. [TCS	1]
Technical onsite conditions and measures to reduce or limit discharges, air emissions releases to soil	_
Risk from environmental exposure is driven by freshwater sediment. [TCR1b]	
Prevent discharge of undissolved substance to or recover from onsite wastewater. [TCR14]	



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CONTROLS	Date:	2018/11/22
CONTROLS	Edition:	1
Treat air emission to provide a typical removal efficiency of (%)	0	
Treat onsite wastewater (prior to receiving water discharge) to provide the requiremoval efficiency $\geq (\%)$	ired 95,7	
If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of $>=$ (%)	0,0	
Organisation measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils. [OMS2] Sludge should be inciner reclaimed. [OMS3]	ated, contair	ned or
Conditions and measures related to municipal sewage treatment plant		
Not applicable as there is no release to wastewater. [STP1]		
Estimated substance removal from wastewater via domestic sewage treatment	(%) 96,1	
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	96,1	
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	1,1E-	
Assumed domestic sewage treatment plant flow (m3/d)	2,0E-	+03
Conditions and measures related to external treatment of waste for dispo		
External treatment and disposal of waste should comply with applicable local a regulations. [ETW3]	nd/or nationa	l
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable loc regulations. [ERW1]	cal and/or na	ational
Section 3 Exposure Estimation		
3.1. Health The ECETOC TRA tool has been used to estimate workplace exposures indicated. G21.	unless othe	erwise
	unless othe	erwise
The ECETOC TRA tool has been used to estimate workplace exposures indicated. G21.		
The ECETOC TRA tool has been used to estimate workplace exposures indicated. G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environmental		
The ECETOC TRA tool has been used to estimate workplace exposures indicated. G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environmental PETRORISK model. [EE2] Section 4 Guidance to check compliance with the Exposure Scenario 4.1. Health	exposure wi	th the
The ECETOC TRA tool has been used to estimate workplace exposures indicated. G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environmental 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 Measures/Operational Conditions outlined in Section 2 are implemented. G22 Management Measures/Operational Conditions are adopted, then users shoul are managed to at least equivalent levels. G23. Available hazard data do not er of a DNEL for dermal irritant effects. G32. Available hazard data do not supp DNEL to be established for other health effects. G36. Risk Management Meas qualitative risk characterisation. G37.	exposure wi Risk Manag Where othe d ensure tha hable the deri port the need	th the ement r Risk t risks vation d for a
The ECETOC TRA tool has been used to estimate workplace exposures indicated. G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environmental 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 Measures/Operational Conditions outlined in Section 2 are implemented. G22 Management Measures/Operational Conditions are adopted, then users shoul are managed to at least equivalent levels. G23. Available hazard data do not er of a DNEL for dermal irritant effects. G32. Available hazard data do not supp DNEL to be established for other health effects. G36. Risk Management Meas qualitative risk characterisation. G37. 4.2. Environment	exposure wi Risk Manag Where othe d ensure tha hable the deri port the need sures are bas	th the ement er Risk t risks ivation d for a sed on
The ECETOC TRA tool has been used to estimate workplace exposures indicated. G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environmental 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 Measures/Operational Conditions outlined in Section 2 are implemented. G22 Management Measures/Operational Conditions are adopted, then users shoul are managed to at least equivalent levels. G23. Available hazard data do not er of a DNEL for dermal irritant effects. G32. Available hazard data do not supp DNEL to be established for other health effects. G36. Risk Management Measures/Operation. G37. 4.2. Environment Guidance is based on assumed operating conditions which may not be applicat thus, scaling may be necessary to define appropriate site-specific risk manager [DSU1] Required removal efficiency for wastewater can be achieved using onsit technologies, either alone or in combination. [DSU2] Required removal efficiency achieved using onsite technologies are provided in SpERC factsheet (http://cefic.com/	exposure wi Risk Manag Where othe d ensure tha hable the deri bort the need sures are bas ble to all sites ment measur te/offsite cy for air can ther details o	th the ement or Risk t risks vation d for a sed on s; es. be n
The ECETOC TRA tool has been used to estimate workplace exposures indicated. G21. 3.2. Environment The Hydrocarbon Block Method has been used to calculate environmental 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 Measures/Operational Conditions outlined in Section 2 are implemented. G22 Management Measures/Operational Conditions are adopted, then users shoul are managed to at least equivalent levels. G23. Available hazard data do not er of a DNEL for dermal irritant effects. G32. Available hazard data do not supp DNEL to be established for other health effects. G36. Risk Management Meas qualitative risk characterisation. G37. 4.2. Environment Guidance is based on assumed operating conditions which may not be applical thus, scaling may be necessary to define appropriate site-specific risk manager [DSU1] Required removal efficiency for wastewater can be achieved using onsi technologies, either alone or in combination. [DSU2] Required removal efficience achieved using onsite technologies, either alone or in combination. [DSU3] Furt	exposure wi Risk Manag Where othe d ensure tha hable the deri bort the need sures are bas ble to all sites ment measur te/offsite cy for air can ther details o	th the ement er Risk t risks ivation d for a sed on s; es. be n for-





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NON OXY GASOLINE RON <95 - EXPOSURE
CONTROLSDate:2018/11/22Edition:1

4. USE OF NON OXY GASOLINE RON <95 AS INTERMEDIATE - INDUSTRIAL

Section 1 Exposure Scenario Title Gasolin and/or H350 and/or H361; (containing 0% to		that is classified as H340	
Title			
01b - Use of substance as intermediate (cla	ssified as H340 and/or H350 and/	or H361; (containing 0%	
to 1% benzene))			
Use Descriptor			
Sector(s) of Use		8, 9	
Process Categories		1, 2, 3, 8a, 8b, 15	
Environmental Release Categories		6a	
Specific Environmental Release Category		ESVOC SpERC 6.1a.v1	
Processes, tasks, activities covered			
Use of substance as an intermediate. In laboratory activities, maintenance and load container).			
Assessment Method			
See Section 3.			
Section 2 Operational conditions and ris	k management measures		
Section 2.1 Control of worker exposure			
Product characteristics			
Physical form of product	Liquid		
Vapour pressure	Liquid, vapour pressure > 10 k	Pa at STP OC5.	
Concentration of substance in product	Covers percentage substance		
	(unless stated differently) G13.		
Frequency and duration of use/exposure	Covers daily exposures up to differently) G2.	o 8 hours (unless stated	
Other Operational Conditions affecting exposure	Operation is carried out at elevated temperature (> 20°C above ambient temperature). OC7. Assumes a good basic standard of occupational hygiene is implemented G1.		
Contributing Scenarios	Specific Risk Management M Conditions	leasures and Operating	
General Measures (skin irritants). G19.	Avoid direct skin contact with areas for indirect skin contact EN374) if hand contact with s contamination/spills as soon as contamination immediately. training to prevent / minimise ex skin effects that may develop.	t. Wear gloves (tested to ubstance likely. Clean up they occur. Wash off skin Provide basic employee posures and to report any E3	
General Measures (carcinogens). G18.	Consider technical advances (including automation) for the Minimise exposure using me systems, dedicated facilities at exhaust ventilation. Drain de transfer lines prior to breaking equipment, where possible, pri there is potential for expose authorised staff; provide spe operators to minimise exposu (tested to EN374) and co contamination; wear respirator	e elimination of releases. easures such as closed nd suitable general / local own systems and clear containment. Clean / flush or to maintenance. Where sure: Restrict access to ecific activity training to res; wear suitable gloves veralls to prevent skin	





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	LINE RON <95 – EXPOSURE CONTROLS	Date: 2018/11/22 Edition: 1
	is identified for certain contrik spills immediately and dis Regularly inspect, test and ma Consider the need for risk b G20.	pose of wastes safely. intain all control measures.
CS15 General exposures (closed systems). + CS56 With sample collection.	Handle substance within clos via a closed loop or other s exposure. E8. Wear suitable PPE15.	system intended to avoid
CS15 General exposures (closed systems).	Handle substance within a clo operation is undertaken outdo	
CS67 Storage.	Ensure operation is undertak substance within a closed syst	ken outdoors. E69. Store
CS36 Laboratory activities	Handle within a fume cupboa equivalent methods to minimis	ard or implement suitable
CS14 Bulk transfers	Ensure material transfers an extract ventilation. E66.	
CS39 Equipment cleaning and maintenance	Drain down and flush system p or maintenance. E55. Retain storage pending disposal or ENVT4. Clear spills imme chemically resistant gloves combination with 'basic' emplo	n drain downs in sealed for subsequent recycle. ediately. C&H13. Wear (tested to EN374) in
Section 2.2 Control of environmental expo		, ,
Product characteristics		
Substance is complex UVCB. [PrC3] Predom	ninantly hydrophobic. [PrC4a]	
Amounts used		
Fraction of EU tonnage used in region		0,1
Regional use tonnage (tonnes/year)		6,3E+05
Fraction of Regional tonnage used locally		2,4E-02
Annual site tonnage (tonnes/year)		1,5E+04
Maximum daily site tonnage (kg/day)		5,0E+04
Frequency and duration of use		
Continuous release. [FD2]		
Emission days (days/year)		300
Environmental factors not influenced by r	risk management	
Local freshwater dilution factor		10
Local marine water dilution factor		100
Other given operational conditions affecti		
Release fraction to air from process (initial re		2,5E-02
Release fraction to wastewater from process (initial release prior to RMM)		1,3E-03
Release fraction to soil from process (initial release prior to RMM)0.001		
Technical conditions and measures at pro		
Common practices vary across sites thus con		
Technical onsite conditions and measure	s to reduce or limit discharges	s, air emissions and
releases to soil		
Risk from environmental exposure is driven to		
Prevent discharge of undissolved substance		
If discharging to domestic sewage treatment		
Treat air emission to provide a typical remova	al efficiency of (%)	8,0E+01



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Product NON OXY GASOLINE RON <95 CONTROLS	– EXPOSURE	Date:	2018/11/22
CONTROLS		Edition:	1
Treat onsite wastewater (prior to receiving water discharge required removal efficiency $>=$ (%)) to provide the	95,7	
If discharging to domestic sewage treatment plant, provide onsite wastewater removal efficiency of >= (%)	the required	0,0	
Organisation measures to prevent/limit release from si	te		
Do not apply industrial sludge to natural soils. [OMS2] Slud reclaimed. [OMS3]	-	erated, conta	ained or
Conditions and measures related to municipal sewage			
Not applicable as there is no release to wastewater. [STP1			
Estimated substance removal from wastewater via domest treatment (%)	Ū.	96,1	
Total efficiency of removal from wastewater after onsite and (domestic treatment plant) RMMs (%)		96,1	
Maximum allowable site tonnage (MSafe) based on release wastewater treatment removal (kg/d)	e following total	5,5E+04	
Assumed domestic sewage treatment plant flow (m3/d)		2,0E+03	
Conditions and measures related to external treatment	-		
This substance is consumed during use and no waste of th		erated. [ETV	V5]
Conditions and measures related to external recovery			
This substance is consumed during use and no waste of th	e substance is gen	erated. [ER\	V3]
Section 3 Exposure Estimation			
3.1. Health			
The ECETOC TRA tool has been used to estimate workp G21.	place exposures un	less otherw	ise indicated.
3.2. Environment			
The Hydrocarbon Block Method has been used to c PETRORISK model. [EE2]		ental expos	ure with the
Section 4 Guidance to check compliance with the Expo	sure Scenario		
4.1. Health			
Predicted exposures are not expected to exceed the Measures/Operational Conditions outlined in Section 2 Management Measures/Operational Conditions are adopt managed to at least equivalent levels. G23. Available hazard for dermal irritant effects. G32. Available hazard data d established for other health effects. G36. Risk Managem characterisation. G37.	are implemented. ed, then users sho d data do not enable o not support the	G22. When ould ensure the derivation need for a	e other Risk that risks are on of a DNEL DNEL to be
4.2. Environment			
Guidance is based on assumed operating conditions which scaling may be necessary to define appropriate site-specifi Required removal efficiency for wastewater can be achieve alone or in combination. [DSU2] Required removal efficience technologies, either alone or in combination. [DSU3] Further are provided in SpERC factsheet (http://cefic.org/en/reach- Maximum Risk Characterisation Ratio for Air Emissions RC	c risk management d using onsite/offsi cy for air can be ach er details on scaling for-industries-librari	measures. te technolog nieved using and control ies.html). [D	[DSU1] ies, either onsite technologies
		0,077	
Maximum Risk Characterisation Ratio for Wastewater Emis	ssions RCRWater	0,9090909	



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Product		E RON <95 – EXPOSURE NTROLS	Date: Edition:	2018/1
		5 AS A FUEL – INDUSTR		
		ow boiling point – unspecified	d that is class	ified
as H340 and/or H350 and/o Title	or H361;(containing U	% to 1% benzene)		
Use as a fuel				
Use Descriptor				
Sector(s) of Use	3	0 0 0 0 40		
Process Categories		2, 3, 8a, 8b, 16		
		rther information on the mappir		on of
Environmental Dalagas Ost		ROC codes is contained in Tabl	e 9.1	
Environmental Release Cate				
Specific Environmental Rele	•••	SVOC SpERC 7.12a.v1		
Processes, tasks, activitie				
Covers the use as a fuel (or i	tuel additives and addit	ive components) within closed	or contained s	ystems,
	es during activities asso	ociated with its transfer, use, eq	uipment maint	enance
and handling of waste. Assessment Method				
See Section 3.				
Section 2 Operational cor	nditions and risk man	agement measures		
Section 2.1 Control of wor	rker exposure			
Product characteristics				
Physical form of product		re > 10 kPa at STP OC5	00.0/ / 1	
Concentration of substance		ubstance in the product up to 1	00 % (unless	stated
in product	differently) G13			
Amounts used	Not applicable		-l'ff - main (h.). OO	
Frequency and duration of	Covers daily exposure	es up to 8 hours (unless stated	differently) G2	
use/exposure Human factors not	Natanaliaahla			
	Not applicable			
influenced by risk				
management Other Operational	Assumes use at not r	nore than 20°C above ambient	t temperatura	unless
Conditions affecting		5. Assumes a good basic star		
exposure	hygiene is implemente		iuaru or occup	alional
Contributing Scenarios		ement Measures and Operati	ing Condition	e
contributing ocenarios		chent measures and operation	ing condition	3
General Measures (skin		act with product. Identify poten		
irritants). <mark>G19</mark> .		gloves (tested to EN374) if		
		in up contamination/spills as so		
		amination immediately. Provi		
		inimise exposures and to report	any skin effec	ts that
	may develop. E3			





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Product	NON OXY GASOLINE RON <95 – EXPOSUR CONTROLS	E Date: Edition:	2018/11/22 1	
General Measures (carcinogens). G18.				
	Regularly inspect, test and maintain all control m the need for risk based health surveillance. G20			
CS502 Bulk closed unloading	Ensure material transfers are under containmen E66.	t or extract ventilat	tion.	
CS8 Drum/batch transfers		t or extract ventilat	tion.	
CS507 Refuelling	Ensure material transfers are under containmen E66.	t or extract ventilat	tion.	
CS508 Refuelling aircraft	Ensure material transfers are under containmen E66.	t or extract ventilat	tion.	
CS15 General exposures	Handle substance within a closed system. E47.			
(closed systems)	Provide a good standard of general ventilation. doors, windows etc. Controlled ventilation means by a powered fan. E1.			
GEST_12I Use as a fuel, CS107 (closed systems)	Handle substance within closed systems. E47.			
CS39 Equipment cleaning and maintenance.	Retain drain downs in sealed storage pending recycle. ENVT4. Clear spills immediately. C&H13. Provide a good standard of general ventilation. doors, windows etc. Controlled ventilation means by a powered fan. E1. Wear chemically resistant gloves (tested to EN basic' employee training. PPE16.	disposal or for sub Natural ventilatio s air is supplied or	osequent n is from removed	
CS67 Storage	Store substance within a closed system. E84. Provide a good standard of general ventilation. doors, windows etc. Controlled ventilation means by a powered fan. E1.	s air is supplied or		
	n the basis for the allocation of the identified O	Cs and RMMs is		
contained in Appendices Section 2.2 Control of er	nvironmental exposure			
Product characteristics				
•	CB [PrC3]. Predominantly hydrophobic [PrC4a].]	
Amounts used				
Fraction of EU tonnage us	-			
Regional use tonnage (ton		1E6		
Fraction of Regional tonna				
Annual site tonnage (tonne		IE6		
Maximum daily site tonnag		SE6		
Frequency and duration				
Continuous release [FD2]. Emission days (days/year)		0	 	
-mission days (days/year)	30	•		



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NON OXY GASOLINE RON <95 – EXPOSURE CONTROLS

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Environmental factors not influenced by risk management Local freshwater dilution factor Local marine water dilution factor Other given operational conditions affecting environmental exposure	10
Local marine water dilution factor	. •
	100
	j
Release fraction to air from process (initial release prior to RMM)	0.0025
Release fraction to wastewater from process (initial release prior to RMM)	0.00001
Release fraction to soil from process (initial release prior to RMM)	0
Technical conditions and measures at process level (source) to prev	ent release
Common practices vary across sites thus conservative process release es	stimates used [TCS1].
Technical onsite conditions and measures to reduce or limit dischar	
releases to soil	
Risk from environmental exposure is driven by humans via indirect exposi-	ure (primarily inhalation)
[TCR1k]. If discharging to domestic sewage treatment plant, no onsite was [TCR9].	
Treat air emission to provide a typical removal efficiency of (%)	99.4
Treat onsite wastewater (prior to receiving water discharge) to provide the	
required removal efficiency (%)	
If discharging to domestic sewage treatment plant, provide the required	0
onsite wastewater removal efficiency of (%)	
Organisation measures to prevent/limit release from site	
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 pla	nt
Estimated substance removal from wastewater via domestic sewage treatment (%)	95.5
	95.5
Maximum allowable site tonnage (M _{Safe}) (kg/d)	4.6E6
Assumed domestic sewage treatment plant flow (m ³ /d)	2000
	lisposal
	-
	generated [ERW3].
Additional information on the basis for the allocation of the identified	
in Petrorisk file	
Section 3 Exposure Estimation	
Section 3 Exposure Estimation 3.1. Health	
	unless otherwise indicated.
3.1. Health	unless otherwise indicated.
3.1. Health The ECETOC TRA tool has been used to estimate workplace exposures used to be a stimate workplace exposures used to be a stimate workplace because a structure of the stimate workplace because a structure of the str	unless otherwise indicated.
3.1. Health The ECETOC TRA tool has been used to estimate workplace exposures u G21.	
eatment (%) otal efficiency of removal from wastewater after onsite and offsite domestic treatment plant) RMMs (%) faximum allowable site tonnage (M _{Safe}) (kg/d) ssumed domestic sewage treatment plant flow (m ³ /d) conditions and measures related to external treatment of waste for of combustion emissions limited by required exhaust emission controls [E considered in regional exposure assessment [ETW2]. conditions and measures related to external recovery of waste his substance is consumed during use and no waste of the substance is additional information on the basis for the allocation of the identified in Petrorisk file	95.5 4.6E6 2000 lisposal TW1]. Combustion emissions generated [ERW3].



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Product

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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].



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Product N		INE RON <95 – EXPOSURE CONTROLS	Date: Edition:	2018/11/2: 1
		<95 AS A FUEL – PROFESS	-	
Section 1 Exposure Scena as H340 and/or H350 and/o		, Low boiling point – unspecified 0% to 1% bonzono)	that is class	sified
Title		g 0% to 1% benzene)		
Use as a fuel				
Use Descriptor				
Sector(s) of Use		22		
Process Categories		1, 2, 3, 8a, 8b, 16		
0		Further information on the mappin	ng and allocati	on of
		PROC codes is contained in Table	e 9.1	
Environmental Release Cate		9a, 9b		
Specific Environmental Relea	• •	ESVOC SpERC 9.12b.v1		
Processes, tasks, activities				
		dditive components) within closed o		
and handling of waste.	es during activities a	associated with its transfer, use, eq	uipment maini	ienance
Assessment Method				
See Section 3.				
Section 2 Operational con	ditions and risk m	anagement measures		
e por allo na obri				
Section 2.1 Control of wor	ker exposure			
Product characteristics				
Physical form of product		ssure > 10 kPa at STP OC5		
Concentration of substance	Covers percentage substance in the product up to 100 % (unless stated			
in product	differently) G13			
Amounts used	Not applicable Covers daily exposures up to 8 hours (unless stated differently) G2			
Frequency and duration of use/exposure		sures up to 8 hours (unless stated of	differently) G2	
Human factors not influenced by risk management	Not applicable			
Other Operational	Assumes use at n	ot more than 20°C above ambient	temperature,	unless
Conditions affecting		G15. Assumes a good basic stan	dard of occup	oational
exposure	hygiene is impleme			
Contributing Scenarios	Specific Risk Mar	nagement Measures and Operati	ng Condition	IS
General Measures (skin irritants). G19.	skin contact. We substance likely. (Wash off skin co	ontact with product. Identify potent ar gloves (tested to EN374) if Clean up contamination/spills as s ontamination immediately. Provid / minimise exposures and to report	hand contac soon as they de basic em	ct with occur. ployee
General Measures (carcinogens). G18.	for the elimination of closed systems, d ventilation. Drain of containment. Cle maintenance. Where there is poor provide specific ac suitable gloves contamination; we certain contributing wastes safely.	advances and process upgrades (i of releases. Minimise exposure usin edicated facilities and suitable ge down systems and clear transfer li an / flush equipment, where tential for exposure: Restrict acces stivity training to operators to minir (tested to EN374) and covera ar respiratory protection when its g scenarios; clear up spills immed test and maintain all control measure	ng measures s neral / local e nes prior to b possible, p ss to authoris mise exposure ills to preve s use is ident diately and dis	such as exhaust reaking rior to ed staff; es; wear nt skin ified for



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CS15 General exposures (Handle substance within a closed system. E47. (Closed systems), OC9 (Closed systems),	Product	NON OXY GASOLINE RON <95 – EXPOSUR CONTROLS	E Date: Edition:	2018/11/22 1
(closed systems), OC9 Outdoor. Ensure material transfers are under containment or extract ventilation. CS502 Bulk closed unloading Ensure material transfers are under containment or extract ventilation. CS8 Drum/batch transfers Ensure material transfers are under containment or extract ventilation. CS8 Drum/batch transfers Ensure material transfers are under containment or extract ventilation. CS8 Drum/batch transfers Ensure material transfers are under containment or extract ventilation. CS5 Equipment Ensure material transfers are under containment or extract ventilation. CS6 Equipment Drain down system prior to equipment break-in or maintenance. Celear splits immediately. C&H13. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. E1. CS67 Storage. Store substance within a closed system. Store substance within a closed system. E84. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controled ventilation means air is supplied or removed by a powered fan. E1. Additional information on the basis for the allocation of the identified OCs and RMMs is Soctian 2.2 Control of environmental exposure Product characteristics Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a].				1
unloading E66. CS8 Drum/batch transfers Ensure material transfers are under containment or extract ventilation. E66. Ensure material transfers are under containment or extract ventilation. E67. Ensure material transfers are under containment or extract ventilation. E68. Ensure material transfers are under containment or extract ventilation. E67. E68. CS50 Equipment Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or for subsequent recycle. ENVI-4. Clear spills immediately. C&H13. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a gowered fan. E1. Ensure operatives are trained to minimise exposures. E19. CS67 Storage. Store substance within a closed system. E84. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a gowered fan. E1. Additional information on the basis for the allocation of the identified OCs and RMMs is contained in Appendices 1 to 3 Section 2.2 Control of environmental exposure Product characteristics Substance is complex UVCB [PrC3	closed systems), OC9	Handle substance within a closed system. E47.		
E66. CS507 Refuelling Ensure material transfers are under containment or extract ventilation. E66 GEST_121 Use as a fuel, CS5 Equipment Handle substance within closed systems. E47. CS5107 (closed systems) Drain down system prior to equipment break-in or maintenance. E66. maintenance Retian drain downs in sealed storage pending disposal or for subsequent recycle. ENVT4. Clear splits immediately. C&H13. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powerd fan. E1. Ensure operatives are trained to minimise exposures. E119. CS67 Storage. CS67 Storage. Store substance within a closed system. E84. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powerd fan. E1. Additional information on the basis for the allocation of the identified OCs and RMMs is contained in Appendices 1to 3 Section 2.2 Control of environmental exposure Product characteristics Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a]. Amounts used Fraction of EU tonnage used locally Anound ys ite tonnage (kg/day) I.1623 Frequency and duration of use <t< td=""><td></td><td></td><td>or extract ventilati</td><td>ion.</td></t<>			or extract ventilati	ion.
E66. CST 12I Use as a fuel, CS107 (closed systems) Handle substance within closed systems, E47. CSE Equipment maintenance Drain down system prior to equipment break-in or maintenance, E66. Retian drain downs in sealed storage pending disposal or for subsequent recycle, ENVT4. Clear spills immediately. C&H13. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. E1. CS67 Storage. Store substance within a closed system. E84. Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. E1. Additional information on the basis for the allocation of the identified OCs and RMMs is contained in Appendices 1 to 3 Section 2.2 Control of environmental exposure Product characteristics Substance is complex UVCB [PrC3]. Predominantly hydrophobic [PrC4a]. Amounts used Fraction of EU tonnage used locally Annual site tonnage (tonnes/year) Annual site tonnage (tonnes/year) Substance is complex (kg/day) Frequency and duration of use Continuous release [FD2]. Emisoin days (days/year) Substance is ont influenced by risk management <			or extract ventilati	ion.
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Risk from environmental exposure is driven by humans via indirect exposure (primarily inhalation) [TCR1k]. If discharging to domestic sewage treatment plant, no onsite wastewater treatment required [TCR9].	Technical onsite condition			ons and
	Risk from environmental TCR1k]. If discharging to			
Treat air emission to provide a typical removal efficiency of (%) N/A		ide a typical removal efficiency of (%)	1	





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Product NON O	XY GASOLINE RON <95 – EXPOSU	JRE	Date:	2018/11/2
	CONTROLS		Edition:	1
Tract apoito wastowator (prior to roc	eiving water discharge) to provide the	D /		
required removal efficiency \geq (%)				
If discharging to domestic sewage onsite wastewater removal efficienc	treatment plant, provide the required 0 by of \geq (%))		
Organisation measures to preven				
	natural soils [OMS2]. Sludge should l	be inciner	ated, conta	ained or
	to municipal sewage treatment plan	t		
Estimated substance removal fror treatment (%)	m wastewater via domestic sewage	95.5		
Total efficiency of removal from (domestic treatment plant) RMMs (%	wastewater after onsite and offsite 9	95.5		
Maximum allowable site tonnage (M		1.5E4		
Assumed domestic sewage treatme	nt plant flow (m ³ /d)	2000		
Conditions and measures related	to external treatment of waste for dis	sposal		
		W1]. Con	nbustion er	missions
	to external recovery of waste			
Conditions and measures related				
Conditions and measures related This substance is consumed during	use and no waste of the substance is g			
Conditions and measures related This substance is consumed during Additional information on the b				MMs is
Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file	use and no waste of the substance is g			MMs is
Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation	use and no waste of the substance is g			MMs is
Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation 3.1. Health	use and no waste of the substance is g asis for the allocation of the inde	ntified O	Cs and R	
Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation 3.1. Health The ECETOC TRA tool has been us G21.	use and no waste of the substance is g	ntified O	Cs and R	
Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation 3.1. Health The ECETOC TRA tool has been us G21. 3.2. Environment	use and no waste of the substance is g pasis for the allocation of the inde	ntified O	Cs and R	ated.
Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation 3.1. Health The ECETOC TRA tool has been us G21. 3.2. Environment The Hydrocarbon Block Method has model [EE2].	use and no waste of the substance is g pasis for the allocation of the inde sed to estimate workplace exposures ur been used to calculate environmental	ntified O	Cs and R	ated.
Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation 3.1. Health The ECETOC TRA tool has been us G21. 3.2. Environment The Hydrocarbon Block Method has model [EE2]. Section 4 Guidance to check con	use and no waste of the substance is g pasis for the allocation of the inde	ntified O	Cs and R	ated.
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Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation 3.1. Health The ECETOC TRA tool has been us G21. 3.2. Environment The Hydrocarbon Block Method has model [EE2]. Section 4 Guidance to check con 4.1. Health Predicted exposures are not exp Measures/Operational Conditions of Where other Risk Management M	use and no waste of the substance is g pasis for the allocation of the inde sed to estimate workplace exposures ur been used to calculate environmental of npliance with the Exposure Scenario pected to exceed the DN(M)EL wh utlined in Section 2 are implemented. G leasures/Operational Conditions are a	ntified O nless othe exposure nen the 22.	Cs and R rwise indica with the Pe Risk Mana	ated. etrorisk
Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation 3.1. Health The ECETOC TRA tool has been us G21. 3.2. Environment The Hydrocarbon Block Method has model [EE2]. Section 4 Guidance to check con 4.1. Health Predicted exposures are not exp Measures/Operational Conditions of Where other Risk Management M ensure that risks are managed to at Available hazard data do not enable hazard data do not support the nee	use and no waste of the substance is g pasis for the allocation of the inde sed to estimate workplace exposures ur been used to calculate environmental appliance with the Exposure Scenario pected to exceed the DN(M)EL wh utlined in Section 2 are implemented. G leasures/Operational Conditions are a least equivalent levels. G23.	ntified O nless othe exposure nen the 22. adopted, t ritant effeo ner health	Cs and R rwise indica with the Pe Risk Mana hen users	ated. etrorisk agement should vailable
Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation 3.1. Health The ECETOC TRA tool has been us G21. 3.2. Environment The Hydrocarbon Block Method has model [EE2]. Section 4 Guidance to check con 4.1. Health Predicted exposures are not exp Measures/Operational Conditions of Where other Risk Management M ensure that risks are managed to at Available hazard data do not enable hazard data do not support the nee Management Measures are based of	use and no waste of the substance is g pasis for the allocation of the inde sed to estimate workplace exposures ur be been used to calculate environmental operational conditions are a pected to exceed the DN(M)EL wh utlined in Section 2 are implemented. G leasures/Operational Conditions are a least equivalent levels. G23.	ntified O nless othe exposure nen the 22. adopted, t ritant effeo ner health	Cs and R rwise indica with the Pe Risk Mana hen users	ated. etrorisk agement should vailable
Conditions and measures related This substance is consumed during Additional information on the b contained in Petrorisk file Section 3 Exposure Estimation 3.1. Health The ECETOC TRA tool has been us G21. 3.2. Environment The Hydrocarbon Block Method has model [EE2]. Section 4 Guidance to check con 4.1. Health Predicted exposures are not exp Measures/Operational Conditions of Where other Risk Management M ensure that risks are managed to at Available hazard data do not enable hazard data do not support the nee Management Measures are based of 4.2. Environment	use and no waste of the substance is g pasis for the allocation of the inde sed to estimate workplace exposures ur been used to calculate environmental appliance with the Exposure Scenario pected to exceed the DN(M)EL wh utlined in Section 2 are implemented. G leasures/Operational Conditions are a least equivalent levels. G23.	ntified O nless othe exposure nen the 22. adopted, t ritant effect ner health	Cs and R rwise indica with the Pe Risk Mana hen users cts. G32. A effects. G3	ated. etrorisk agement should vailable 36. Risk



According to the Regulation No. 1907/2006

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Product

NON OXY GASOLINE RON <95 - EXPOSURE</th>Date:2018/11/22CONTROLSEdition:1

7. USE OF NON OXY GASOLINE RON <95 AS A FUEL - CONSUMER

		Gasoline, Low boiling point – unspecified that is classified ontaining 0% to 1% benzene)		
Use as a fuel				
Use Descriptor				
Sector(s) of Use		21		
Product Categories		13		
		Further information on the mapping and allocation of		
		PC codes is contained in Table 9.1		
Environmental Release Cate		9a, 9b		
Specific Environmental Rele	•			
Processes, tasks, activitie				
Covers the consumer use of	substance	e in liquid fuels		
Assessment Method				
See Section 3.				
Section 2 Operational con	ditions ar	nd risk management measures		
		v		
Section 2.1 Control of con	sumer ex	posure		
Product characteristics				
Physical form of product	Liquid			
Vapour pressure (Pa)		pour pressure > 10 kPa at STP OC5		
Concentration of substance		herwise stated, cover concentrations up to 100% [ConsOC1]		
in product		······································		
Amounts used	Unless ot	herwise stated, covers use amounts up to37500g [ConsOC2];		
		in contact area up to 420cm2 [ConsOC5]		
Frequency and duration of		herwise stated, covers use frequency up to 0.143 times per day		
use/exposure		4]; covers exposure up to 2 hours per event [ConsOC14]		
Other Operational		otherwise stated assumes use at ambient temperatures		
Conditions affecting		15]; assumes use in a 20 m ³ room [ConsOC11]; assumes use		
exposure		al ventilation [ConsOC8].		
Product Category		Risk Management Measures and Operating Conditions		
	1			
	0.0			
PC13:FuelsLiquid -	OC	Unless otherwise stated, covers concentrations up to 1%		
subcategories added:		[ConsOC1]; covers use up to 52 days/year[ConsOC3]; covers		
Automotive Refuelling		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];		
	RMM	No specific RMMs developed beyond those OCs stated		
PC13:FuelsLiquid -	OC	Unless otherwise stated, covers concentrations up to 1%		
subcategories added:		[ConsOC1]; covers use up to 52 days/year[ConsOC3]; covers		
Scooter Refuelling		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 3750g [ConsOC2]; covers outdoor use		
		[ConsOC12]; covers use in room size of 100m3[ConsOC11];		
		for each use event, covers exposure up to 0.03hr/event[ConsOC14];		
	RMM	No specific RMMs developed beyond those OCs stated		
PC13:FuelsLiquid -	oc	Unless otherwise stated, covers concentrations up to 1%		
subcategories added:	[ConsOC1]; covers use up to 26 days/year[ConsOC3]; covers			
Garden Equipment - Use		use up to 1 time/on day of use[ConsOC4]; for each use event,		





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Product	NON OXY	GASOLINE RON <95 – EXPOS CONTROLS	SURE Date: Edition:	2018/11/22 1
				1
		100m3[ConsOC11]; for each use	use in room si	ze of
	DI 414	2.00hr/event[ConsOC14];		
DO40. Fuele Lieuid	RMM	No specific RMMs developed bey		to 10/
PC13:FuelsLiquid (subcategories added): Garden Equipment - Refuelling	OC	Unless otherwise stated, cover [ConsOC1]; covers use up to 26 co use up to 1 time/on day of use[Co area up to 420.00 cm2 [ConsOC use amounts up to 750g [ConsOC garage (34m3) under typical vent use in room size of 34m3[ConsO	days/year[ConsOC3]; c onsOC4]; covers skin o 5]; for each use event, C2]; Covers use in a or ilation [ConsOC10]; cc DC11]; for each use e	covers contact covers ne car overs
		covers exposure up to 0.03hr/eve	nt[ConsOC14];	
A 1 P// 11 6 //	RMM	No specific RMMs developed bey	ond those OCs stated	
contained in Appendices		for the allocation of the identified	d OCS and RIVINS IS	
Section 2.2 Control of e		al exposure		
Product characteristics				
		Predominantly hydrophobic [PrC4a]		
Amounts used	СБ [ГІСЭ].	Fredominantiy nydrophobic [FrC4a]	•	
	ad in reaion		0.4	
Fraction of EU tonnage us	•		0.1	
Regional use tonnage (tor Fraction of Regional tonna		ally	1.39E7 0.0005	
Annual site tonnage (tonn	•	ally	7.0E3	
Maximum daily site tonnage			1.9E4	
Frequency and duration			1.904	
Continuous release [FD2]				
Emission days (days/year			365	
Environmental factors n		ed by risk management	000	
Local freshwater dilution fa		, ,	10	
Local marine water dilution			100	
Other given operational	conditions	affecting environmental exposure	9	
		ersive use (regional use only) rocess (initial release prior to	0.01	
Release fraction to waste	water wide d	ispersive use [OOC8]	0.00001	
		ersive use (regional use only)	0.00001	
	es related to	o municipal sewage treatment pla	nt	
		driven by humans via indirect exposi		n)
treatment (%)		astewater via domestic sewage	95.5	
Maximum allowable site to	onnage (M _{Sa}	_{fe}) (kg/d)	1.8E5	
Assumed domestic sewag	ge treatment	plant flow (m ³ /d)	2000	
		external treatment of waste for c		
Combustion emissions lim considered in regional exp	nited by requ	ired exhaust emission controls [ETV ssment [ETW2].		sions
		external recovery of waste		
		se and no waste of the substance is		
Additional information o contained in Petrorisk fi		for the allocation of the identified	OUS and RMMs is	



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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 applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented. G39.

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

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