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

1.1. Product identifier

89910 Divinol System Cleaner Diesel

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

Use of the substance/mixture

Fuel additive

1.3. Details of the supplier of the safety data sheet

Company name:	Zeller+Gmelin GmbH & Co. KG		
Street:	Schlossstr. 20		
Place:	D-73054 Eislingen		
Telephone:	+49 (0) 7161 / 802-0	Telefax:	+49 (0) 7161 / 802-290
E-mail:	info@zeller-gmelin.de		
Contact person:	Thorsten Grönig	Telephone:	+49 (0) 7161 / 802-268
E-mail:	produktsicherheit@zeller-gmelin.de		
Internet:	www.zeller-gmelin.de		
Responsible Department:	Produktsicherheit / Product Safety		

1.4. Emergency telephone number:

GBK/Infotrac ID 103334 international: (001) 352 323 3500

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Asp. Tox. 1; H304
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics
hydrocarbons, C10, aromatics, <1% naphthalene

Signal word: Danger

Pictograms:

Hazard statements

H304	May be fatal if swallowed and enters airways.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P102	Keep out of reach of children.
P273	Avoid release to the environment.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.

Special labelling of certain mixtures

EUH066	Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

Endocrine disrupting properties: phenol, 4-dodecyl-, branched.
No further relevant information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Solvent-based mixture.

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
64742-48-9	hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics			> 50 - < 100 %
	918-481-9		01-2119457273-39	
	Asp. Tox. 1; H304 EUH066			
27247-96-7	2-ethylhexyl nitrate			> 2,5-<= 10 %
	248-363-6		01-2119539586-2	
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Aquatic Chronic 2; H332 H312 H302 H411 EUH044 EUH066			
64742-94-5	hydrocarbons, C10, aromatics, <1% naphthalene			> 2,5-<= 10 %
	918-811-1		01-2119463583-34	
	STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H336 H304 H411 EUH066			
104-76-7	2-ethylhexan-1-ol			1 - < 2.5 %
	203-234-3		01-2119487289-20	
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H332 H315 H319 H335			
91-20-3	naphthalene			< 1 %
	202-049-5	601-052-00-2	01-2119561346-37	
	Carc. 2, Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1; H351 H302 H400 H410			
210555-94-5	phenol, 4-dodecyl-, branched			< 0.1 %
		604-092-00-9	01-2119513207-49	
	Repr. 1B, Skin Corr. 1C, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H360F H314 H318 H400 H410			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
64742-48-9	918-481-9	hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	> 50 - < 100 %
	inhalation: LC50 = >4951 mg/l (vapours); dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000 mg/kg		
27247-96-7	248-363-6	2-ethylhexyl nitrate	> 2,5-<= 10 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = > 4,6 mg/l (dusts or mists); dermal: LD50 = 4820 mg/kg; oral: LD50 = >9640 mg/kg		
64742-94-5	918-811-1	hydrocarbons, C10, aromatics, <1% naphthalene	> 2,5-<= 10 %
	oral: LD50 = > 6318,0 mg/kg		
104-76-7	203-234-3	2-ethylhexan-1-ol	1 - < 2.5 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 3000 mg/kg; oral: LD50 = 2047-3730 mg/kg		
91-20-3	202-049-5	naphthalene	< 1 %
	inhalation: LC50 = > 110 mg/l (dusts or mists); dermal: LD50 = > 2500 mg/kg; oral: LD50 = 490 mg/kg		
210555-94-5		phenol, 4-dodecyl-, branched	< 0.1 %
	Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. If unconscious but breathing normally, place in recovery position and seek medical advice. Remove contaminated, saturated clothing immediately.

After inhalation

Remove casualty to fresh air and keep warm and at rest.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Let water be drunken in little sips (dilution effect). Call a physician immediately. Do NOT induce vomiting.

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

When in doubt or if symptoms are observed, get medical advice.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO2).

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products: Carbon monoxide Carbon dioxide (CO2). Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Do not allow to enter into soil/subsoil.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Protective measures: see section 7 + 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Clean contaminated articles and floor according to the environmental legislation.

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Protective measures: see section 7 + 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Do not eat, drink or smoke when using this product. Provide fresh air. Handle and open container with care. Conditions to avoid: generation/formation of aerosols.

Advice on protection against fire and explosion

No special measures are necessary.

Advice on general occupational hygiene

When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Protect against: Frost. Keep away from heat. Protect from direct sunlight. Keep container tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
104-76-7	2-Ethylhexan-1-ol	1	5.4		TWA (8 h)	
91-20-3	Naphthalene	10	50		TWA (8 h)	

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
27247-96-7	2-ethylhexyl nitrate		
Worker DNEL, long-term	dermal	systemic	1 mg/kg bw/day
Worker DNEL, long-term	dermal	local	0,044 mg/cm²
Worker DNEL, long-term	inhalation	systemic	0,35 mg/m³
Consumer DNEL, long-term	dermal	systemic	0,52 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,087 mg/m³
Consumer DNEL, long-term	oral	systemic	0,025 mg/kg bw/day
Consumer DNEL, long-term	dermal	local	0,022 mg/cm²
104-76-7	2-ethylhexan-1-ol		
Worker DNEL, acute	inhalation	local	53,2 mg/m³
Worker DNEL, long-term	dermal	systemic	23 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	12,8 mg/m³
Worker DNEL, long-term	inhalation	local	53,2 mg/m³
Consumer DNEL, acute	inhalation	local	26,6 mg/m³
Consumer DNEL, long-term	oral	systemic	1,1 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	2,3 mg/m³
Consumer DNEL, long-term	dermal	systemic	11,4 mg/kg bw/day
Consumer DNEL, long-term	inhalation	local	26,6 mg/m³

PNEC values

CAS No	Substance
Environmental compartment	Value
27247-96-7	2-ethylhexyl nitrate
Freshwater	0,0008 mg/l
Marine water	0,00008 mg/l
Soil	0,000191 mg/kg
104-76-7	2-ethylhexan-1-ol
Freshwater	0,017 mg/l
Freshwater (intermittent releases)	0,17 mg/l
Marine water	0,0017 mg/l
Freshwater sediment	0,284 mg/kg
Marine sediment	0,028 mg/kg
Secondary poisoning	55 mg/kg
Micro-organisms in sewage treatment plants (STP)	10 mg/l
Soil	0,047 mg/kg

Additional advice on limit values

a no restriction
b End of exposure or end of shift
c at long-term exposure:
d before next shift

Y: A risk of reproductive effects needs not to be feared if the occupational exposure limit value (AGW) and the biological limit value (BGW) is kept
Z: A risk of reproductive effects cannot to be excluded if the occupational exposure limit value (AGW) and the biological limit value (BGW) is kept
blood (B)
Urine (U)

8.2. Exposure controls

Appropriate engineering controls

See section 7. No additional measures necessary.

Individual protection measures, such as personal protective equipment

Eye/face protection

Eye glasses with side protection (EN ISO 16321).

Hand protection

Wear suitable gloves. Recommended glove articles: EN ISO 374. Suitable material: NBR (Nitrile rubber). Breakthrough time: > 480 min (Thickness of the glove material: 0.4 mm). Breakthrough times and swelling properties of the material must be taken into consideration. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Skin protection

Protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. When splashes or fine mist form, a permitted breathing apparatus suitable for these purposes must be used. Suitable respiratory protection apparatus: Filtering Half-face mask (EN 149), e.g. FFA P / FFP3.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	light yellow
Odour:	characteristic

		Test method
Melting point/freezing point:	not determined	
Boiling point or initial boiling point and boiling range:	180 - 280 °C	
Flammability:	not determined	
Lower explosion limits:	0,6 vol. %	
Upper explosion limits:	7 vol. %	
Flash point:	63 °C	
Auto-ignition temperature:	200 °C	
Decomposition temperature:	not determined	
pH-Value:	not applicable	
Viscosity / kinematic: (at 40 °C)	< 7 mm²/s	EN ISO 3104
Water solubility:	insoluble	
Partition coefficient n-octanol/water:	not determined	
Vapour pressure:	not determined	ASTM D 323
Density (at 20 °C):	0,81 g/cm³	
Relative vapour density:	not determined	
Particle characteristics:	not applicable	

9.2. Other information

Other safety characteristics

Pour point:	not determined
Viscosity / dynamic:	not determined
Flow time:	not determined

Further Information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

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

Acute toxicity

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

ATEmix calculated

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64742-48-9	hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 >5000 mg/kg	Rabbit		
	inhalation (4 h) vapour	LC50 >4951 mg/l	Rat		
27247-96-7	2-ethylhexyl nitrate				
	oral	LD50 >9640 mg/kg	Rat		
	dermal	LD50 4820 mg/kg	Rabbit		
	inhalation vapour	ATE 11 mg/l			
	inhalation (1 h) dust/mist	LC50 > 4,6 mg/l	Rat		
64742-94-5	hydrocarbons, C10, aromatics, <1% naphthalene				
	oral	LD50 > 6318,0 mg/kg	Rat		
104-76-7	2-ethylhexan-1-ol				
	oral	LD50 2047-3730 mg/kg	Rat		
	dermal	LD50 > 3000 mg/kg	Rat		
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
91-20-3	naphthalene				
	oral	LD50 490 mg/kg	Rat		
	dermal	LD50 > 2500 mg/kg	Rat		
	inhalation (4 h) dust/mist	LC50 > 110 mg/l			

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.
Repeated exposure may cause skin dryness or cracking.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Endocrine disrupting properties

Endocrine disrupting properties: phenol, 4-dodecyl-, branched.

Other information

Keeping to the general worker's protection rules and the industrial hygienics, there is no risk in handling this product through the personnel.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
64742-48-9	hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics						
	Acute fish toxicity	LC50 mg/l	>1000	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203	
	Acute algae toxicity	ErC50 mg/l	>1000	72 h	Pseudokirchneriella subcapitata	OECD 201	
	Acute crustacea toxicity	EC50 mg/l	>1000	48 h	Daphnia magna (Big water flea)	OECD 202	
27247-96-7	2-ethylhexyl nitrate						
	Acute fish toxicity	LC50 mg/l	1,88	96 h	Danio rerio (zebrafish)		
	Acute algae toxicity	ErC50 mg/l	>12,6	72 h			
	Acute crustacea toxicity	EC50 mg/l	>12,6	48 h	Daphnia magna (Big water flea)		
91-20-3	naphthalene						
	Acute fish toxicity	LC50 mg/l	0,51	96 h			
	Acute crustacea toxicity	EC50 mg/l	2,19	48 h	Daphnia magna (Big water flea)		

12.2. Persistence and degradability

There are no data available on the mixture itself.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
27247-96-7	2-ethylhexyl nitrate			
	Biodegradation	0 %	28	
	Not readily biodegradable (according to OECD criteria)			
104-76-7	2-ethylhexan-1-ol			
	BOD (% of ThOD).	>60,0 %		

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
27247-96-7	2-ethylhexyl nitrate	3,74 - 5,24
104-76-7	2-ethylhexan-1-ol	2,28-3,10
91-20-3	naphthalene	3,3

BCF

CAS No	Chemical name	BCF	Species	Source
27247-96-7	2-ethylhexyl nitrate	1332		

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

Endocrine disrupting properties: phenol, 4-dodecyl-, branched.

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of Wastes Code - residues/unused products

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Consult the appropriate local waste disposal expert about waste disposal.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.
Marine pollutant: NO

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No data available

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

EU regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):
phenol, 4-dodecyl-, branched

Restrictions on use (REACH, annex XVII):
Entry 3, Entry 28, Entry 30, Entry 75

Directive 2010/75/EU on industrial emissions:	99,3 % (805 g/l)
Information according to Directive 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Water hazard class (D):	2 - obviously hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

Acute Tox: Acute toxicity
Asp. Tox: Aspiration hazard
Skin Corr: Skin corrosion
Skin Irrit: Skin irritation
Eye Dam: Eye damage
Eye Irrit: Eye irritation
Carc: Carcinogenicity
Repr: Reproductive toxicity
STOT SE: Specific target organ toxicity - single exposure
Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard
ADR: Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement concernant le transport international ferroviaire des marchandises dangereuses (Regulations concerning the International Carriage of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
CAS: Chemical Abstracts Service (a division of the American Chemical Society)
DNEL/DMEL: Derived No-Effect Level / Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
WEL (UK): Workplace Exposure Limits
TWA (EC): Time-Weighted Average
STEL (EC): Short Term Exposure Limit
ATE: Acute Toxicity Estimate
LD50: Lethal Dose, 50% (median lethal dose)
LC50: Lethal Concentration, 50% (median lethal concentration)
EC50: half maximal Effective Concentration
ErC50: EC50 in terms of reduction of growth rate
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Asp. Tox. 1; H304	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH044	Risk of explosion if heated under confinement.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

Safety Data Sheet according to COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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