Waygate Technologies Baker Hughes Digital Solutions GmbH
50354 Hürth

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

1.1 Product identifier

ZGS

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

1.2.1 Relevant uses

Coupling gel

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Waygate Technologies Baker Hughes Digital Solutions GmbH
Robert-Bosch-Str. 3
50354 Hürth / GERMANY
Phone +49 (0) 2233-601-0
Fax +49 (0) 2233-601-402
Homepage www.waygate-tech.com
E-mail Waygate.utsp@bakerhughes.com

Address enquiries to

Technical information Waygate.utsp@bakerhughes.com

Safety Data Sheet sdb@chemiebuero.de (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

1.4 Emergency telephone number

Advisory body Call NHS 111 or a doctor

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

No classification.

2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms none

Signal word none

Hazard statements none

Precautionary statements none

Special labelling EUH210 Safety data sheet available on request.

2.3 Other hazards

Human health dangers May cause irritation of eye and skin.

Environmental hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Contains no ingredients with endocrine-disrupting properties.

Other hazards No particular hazards known.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
0.1 - 0.5	2-Ethylhexanoic acid
	CAS: 149-57-5, EINECS/ELINCS: 205-743-6, EU-INDEX: 607-230-00-6, Reg-No.: 01-2119488942-23-XXXX
	GHS/CLP: Repr. 2: H361d

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Take off contaminated clothing and wash before reuse.

Inhalation Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion Rinse out mouth and give plenty of water to drink.
Do not induce vomiting.
Get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Shortness of breath
Headache
Dizziness
Cough
Gastro-intestinal complains.
Nausea, vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to your doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

Extinguishing media that must not be used Full water jet

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Smoke

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Cool containers at risk with water spray jet.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
High risk of slipping due to leakage/spillage of product.
Wear suitable protective equipment. For personal protection see SECTION 8.
Remove persons to safety.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, universal absorbent, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Avoid contact with eyes and skin. Use personal protective equipment.
The normal safety precautions for handling chemicals must be observed.

Do not smoke.

Do not eat, drink, smoke or take drugs at work.
Remove soiled or soaked clothing.
Cloths contaminated with product should not be kept in trouser pockets.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Do not store together with oxidizing agents.
Do not store together with acids and alkalies.

Keep container tightly closed.
Keep container in a well-ventilated place.
Store in a dry place.
Protect from heat/overheating and from sun.
Recommended storage temperature: 5 - 30°C

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

not relevant

DNEL

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
Industrial, dermal, Long-term - local effects, 2 mg/kg bw/day
Industrial, inhalative, Long-term - local effects, 14 mg/m³
general population, oral, Long-term - local effects, 1 mg/kg bw/day
general population, dermal, Long-term - local effects, 1 mg/kg bw/day
general population, inhalative, Long-term - local effects, 3.5 mg/m³

PNEC

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
soil, 0.712 mg/kg soil dw
sediment (seawater), 0.474 mg/kg sediment dw
sediment (freshwater), 4.74 mg/kg sediment dw
sewage treatment plants (STP), 71.7 mg/L
seawater, 0.04 mg/L
freshwater, 0.398 mg/L

8.2 Exposure controls

Additional advice on system design
Ensure adequate ventilation on workstation.
Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

Eye protection
During transfer:
Safety glasses. (EN 166:2001)

Hand protection
The details concerned are recommendations. Please contact the glove supplier for further information.
> 0.1 mm. Neoprene, >480 min (EN 374-1/-2/-3).
> 0.1 mm. Nitrile rubber, >480 min (EN 374-1/-2/-3).

Skin protection
Light protective clothing.

Other
Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Avoid contact with eyes and skin.

Respiratory protection
Not required under normal conditions.

Thermal hazards
not applicable

Delimitation and monitoring of the environmental exposition
Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	pasty
Color	green
Odor	characteristic
Odour threshold	No information available.
pH-value	6 (20 °C)
pH-value [1%]	not applicable
Boiling point [°C]	100
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	2.6 Vol.-%
Upper explosion limit	12.6 Vol.-%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	1.63
Density [g/cm³]	1.02 (20 °C / 68,0 °F)
Relative density	No information available.
Bulk density [kg/m³]	not applicable
Solubility in water	miscible
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	No information available.
Kinematic viscosity	11804 mm²/s (40 °C) dynamic: > 12000 mPa*s
Relative vapour density	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.
Particle characteristics	not applicable

9.2 Other information

NLGI (National Lubricating Grease Institute) consistency number: 1

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.
Reactions with strong acids and alkalies.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

No decomposition if used and stored according to specifications.
In the case of heating following (decomposition) products may occure:
Oxide of carbon (COx)
Toxic gases/vapours.

SECTION 11: Toxicological information

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

Acute oral toxicity

Product
Based on the available information, the classification criteria are not fulfilled.

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
LD50, oral, Rat, 3000 mg/kg (IUCLID)

Acute dermal toxicity

Product
Based on the available information, the classification criteria are not fulfilled.

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
LD50, dermal, Rabbit, > 2000 mg/kg (OECD 402)

Acute inhalational toxicity

Product
Based on the available information, the classification criteria are not fulfilled.

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
LC0, inhalative, Rat, 110 mg/m³/8h

Serious eye damage/irritation Based on the available information, the classification criteria are not fulfilled.

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
no adverse effect observed

Skin corrosion/irritation Based on the available information, the classification criteria are not fulfilled.

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
Slight irritant effect - does not require labelling.

Respiratory or skin sensitisation Based on the available information, the classification criteria are not fulfilled.

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
dermal, no adverse effect observed

Specific target organ toxicity — single exposure Based on the available information, the classification criteria are not fulfilled.

Specific target organ toxicity — repeated exposure Based on the available information, the classification criteria are not fulfilled.

Mutagenicity Based on the available information, the classification criteria are not fulfilled.

Substance
2-Ethylhexanoic acid, CAS: 149-57-5

in vivo, negativ
in vitro, negativ

Reproduction toxicity Based on the available information, the classification criteria are not fulfilled.

- Fertility

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
NOAEL, oral, Rat, 800 mg/kg bw/d (Effect levels (F1)), OECD 433
NOAEL, oral, Rat, 250 mg/kg bw/d (Effect levels (P0)), OECD 433

- Development

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
NOAEL, oral, Rat, 800 mg/kg bw/d (Effect levels (F1)), OECD 433
NOAEL, oral, Rat, 250 mg/kg bw/d (Effect levels (P0)), OECD 433

Carcinogenicity Based on the available information, the classification criteria are not fulfilled.

Aspiration hazard Based on the available information, the classification criteria are not fulfilled.

General remarks

Toxicological data of complete product are not available.
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

11.2 Information on other hazards

Endocrine disrupting properties Does not contain a relevant substance that meets the classification criteria.

Other information none

SECTION 12: Ecological information

12.1 Toxicity

Product
Based on the available information, the classification criteria are not fulfilled.

Substance
2-Ethylhexanoic acid, CAS: 149-57-5
LC50, (96h), Leuciscus idus, > 250 mg/l
EC50, Pseudomonas putida, 110 mg/l (17 h) (IUCLID)
EC50, (48h), Daphnia magna, 85.4 mg/l (IUCLID)
IC50, (72h), Desmodesmus subspicatus, 61 mg/l (IUCLID)

12.2 Persistence and degradability

Behaviour in environment compartments No information available.

Behaviour in sewage plant No information available.

Biological degradability CAS 149-57-5: 85-95%. 6d (OECD 302B)

12.3 Bioaccumulative potential

CAS 149-57-5: log Pow = 2.64

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

not applicable

12.6 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

12.7 Other adverse effects

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Disposal in an incineration plant in accordance with the regulations of the local authorities. Coordinate disposal with the disposal contractor/authorities if necessary.

Waste no. (recommended) 070108*
160507*

Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.
Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID	NO DANGEROUS GOODS
Inland navigation (ADN)	NO DANGEROUS GOODS
Marine transport in accordance with IMDG	NOT CLASSIFIED AS "DANGEROUS GOODS"
Air transport in accordance with IATA	NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	none
- VOC (2010/75/CE)	254 g/l

15.2 Chemical safety assessment

CAS 149-57-5 For the following substances of this preparation a chemical safety assessment has been carried out:

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H361d Suspected of damaging the unborn child.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Modified position none