

SAE 75W-90 GL 4/5

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

1.1. Product identifier

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

Use of the substance/mixture

gear oil

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	Vierol AG	
Street:	Karlstrasse 19	
Place:	D-26123 Oldenburg	
Telephone:	+49 (0) 441 – 210 20 – 0	Telefax: +49 (0) 441 – 210 20 –111
E-mail:	info@vierol.de	
Internet:	www.vierol.de	

1.4. Emergency telephone number:

Giftinformationszentrum Nord (Göttingen)
+49 (0)551/19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

2.2. Label elements

Regulation (EC) No 1272/2008

Special labelling

EUH208 Contains Alkylamine trialkyldithiophosphate. May produce an allergic reaction.

Additional advice on labelling

According to EC directives or the corresponding national regulations the product does not have to be labelled.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Preparation of synthetic oils and additives.

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified			50 - 100 %
	265-157-1	649-467-00-8	01-2119484627-25	
	Asp. Tox. 1; H304			
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified			< = 2,5 %
	265-158-7	649-468-00-3	01-2119487077-29	
	Asp. Tox. 1; H304			
	methacrylate copolymer			< = 1,0 %
	Eye Irrit. 2; H319			
	Alkylamine trialkyldithiophosphate			< = 1,0 %
	Acute Tox. 4, Eye Dam. 1, Skin Sens. 1B, Aquatic Chronic 2; H302 H318 H317 H411			
91648-65-6	1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol			< = 1,0 %
	293-927-7		01-2119976351-35	
	Aquatic Chronic 3; H412			

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	
64742-54-7	265-157-1	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified	50 - 100 %
		inhalation: LC50 = 5,53 mg/l (dusts or mists); dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg	
64742-55-8	265-158-7	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified	< = 2,5 %
		dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg	
		Alkylamine trialkyldithiophosphate	< = 1,0 %
		oral: ATE = 500 mg/kg	
91648-65-6	293-927-7	1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol	< = 1,0 %
		inhalation: LC50 = > 2,75 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 10000 mg/kg	

Further Information

This mixture contains no substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from the danger area and lay down.

Do not leave affected person unattended.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. Call a doctor if you feel unwell.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.
Take off contaminated clothing and wash it before reuse.
In case of skin irritation, consult a physician.

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

Rinse mouth thoroughly with water.
Let water be drunk in little sips (dilution effect).
Do NOT induce vomiting.
In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use water spray jet to protect personnel and to cool endangered containers.
Co-ordinate fire-fighting measures to the fire surroundings.
- Water spray jet
- Carbon dioxide (CO₂).
- Extinguishing powder

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.
In case of fire may be liberated:
- Carbon monoxide (CO)
- Carbon dioxide (CO₂).
- Sulphur dioxide (SO₂)
- Pyrolysis products, toxic

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Use of protective clothing
In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Keep people at a distance and stay on the windward side.
Special danger of slipping by leaking/spilling product.

For non-emergency personnel

Wear protective gloves/protective clothing and eye/face protection.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
Do not allow to enter into soil/subsoil.

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Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

For containment

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.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Remove from the water surface (e.g. skimming, sucking).

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid formation of oil dust.

Use personal protection equipment.

Do not put any product-impregnated cleaning rags into your trouser pockets.

Clear spills immediately.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Take precautionary measures against static discharges.

Keep away from sources of ignition - No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed and in a well-ventilated place.

Keep only in the original container. Store in a cool dry place. (Protect from moisture.)

Floors should be impervious, resistant to liquids and easy to clean.

Hints on joint storage

Do not store together with:

- Materials capable of ignition under almost all normal temperature conditions
- Explosives

7.3. Specific end use(s)

gear oil

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Safety Data Sheet

according to UK REACH Regulation

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DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified			
Worker DNEL, long-term		inhalation	systemic	2,73 mg/m³
Worker DNEL, long-term		inhalation	local	5,58 mg/m³
Worker DNEL, long-term		dermal	systemic	0,97 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	1,19 mg/m³
Consumer DNEL, long-term		oral	systemic	0,74 mg/kg bw/day
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified			
Worker DNEL, long-term		inhalation	systemic	2,73 mg/m³
Worker DNEL, long-term		inhalation	local	5,58 mg/m³
Worker DNEL, long-term		dermal	systemic	0,97 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	1,19 mg/m³
Consumer DNEL, long-term		oral	systemic	0,74 mg/kg bw/day
91648-65-6	1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol			
Worker DNEL, long-term		inhalation	systemic	4,408 mg/m³
Worker DNEL, long-term		dermal	systemic	6,25 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,087 mg/m³
Consumer DNEL, long-term		dermal	systemic	3,125 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,625 mg/kg bw/day

PNEC values

CAS No	Substance		Value
	Environmental compartment		
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified		
	Secondary poisoning		9,33 mg/kg
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified		
	Secondary poisoning		9,33 mg/kg
91648-65-6	1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol		
	Freshwater		0,041 mg/l
	Freshwater (intermittent releases)		0,41 mg/l
	Marine water		0,004 mg/l
	Freshwater sediment		380,62 mg/kg
	Marine sediment		38,06 mg/kg
	Secondary poisoning		6,67 mg/kg
	Microorganisms in sewage treatment plants (STP)		8000 mg/l
	Soil		308,96 mg/kg

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Protective and hygiene measures

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and after work.

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

Eye/face protection

During filling, metering, mixing and sampling must be used:

Wear eye/face protection. EN 166

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Recommended glove articles: EN ISO 374

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material: 0,4 mm

Breakthrough times and swelling properties of the material must be taken into consideration. Breakthrough time: > 8h

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.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	brown
Odour:	Mineral-oil-like
Odour threshold:	not determined

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point/freezing point:	not determined
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Boiling point or initial boiling point and boiling range:	not determined
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Pour point:	-51 °C ISO 3016
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Flash point:	204 °C DIN ISO 2592
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Flammability

Solid/liquid:	not applicable
	not applicable

Explosive properties

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

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Lower explosion limits: 2,6 vol. %
Upper explosion limits: 12,6 vol. %
Auto-ignition temperature: > 300 °C DIN 14522
Self-ignition temperature
Solid: not applicable
Gas: not applicable
Decomposition temperature: not determined

Oxidizing properties

The product is not: oxidising.

Vapour pressure: 0,1 hPa
(at 20 °C)

Density (at 20 °C): 0,84 g/cm³ DIN 51757

Water solubility: The study does not need to be conducted
because the substance is known to be
insoluble in water.

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic: 90 mm²/s DIN 51562
(at 40 °C)

Relative vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

The formation of combustible vapours is possible at temperatures above: Flash point

10.4. Conditions to avoid

Avoid: Thermal decomposition

10.5. Incompatible materials

Materials to avoid:

- Oxidising agent
- Reducing agent

10.6. Hazardous decomposition products

Hazardous combustion products:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂).
- Sulphur dioxide (SO₂)
- Pyrolysis products, toxic

SECTION 11: Toxicological information

11.1. Information on hazard classes

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
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified				
	oral	LD50 > 5000 mg/kg	Rat	REACH Registration Dossier	OECD Guideline 401
	dermal	LD50 > 5000 mg/kg	Rabbit	REACH Registration Dossier	OECD Guideline 402
	inhalation (4 h) dust/mist	LC50 5,53 mg/l	Rat		OECD Guideline 403
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified				
	oral	LD50 > 5000 mg/kg	Rat	REACH Registration Dossier	OECD Guideline 401
	dermal	LD50 > 5000 mg/kg	Rabbit	REACH Registration Dossier	OECD Guideline 402
	Alkylamine trialkyldithiophosphate				
	oral	ATE 500 mg/kg			
91648-65-6	1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol				
	oral	LD50 > 10000 mg/kg	Rat	Study report (1981)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Study report (1981)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 > 2,75 mg/l	Rat	Study report (1981)	OECD Guideline 403

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.

Sensitising effects

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

Contains Alkylamine trialkyldithiophosphate. May produce an allergic reaction.

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.

The product contains less than 3% DMSO extract (method IP346). A classification as a carcinogen with R45 is deleted. (Note L)

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

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

Additional information on tests

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

12.1. Toxicity

The product spreads out on the surface of the water. A small fraction of the constituents will be dissolved. It prevents the solution of oxygen and can cause the death of water organism.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified					
	Acute fish toxicity	LL50 mg/l	> 100	96 h	Pimephales promelas	REACH Registration Dossier
	Acute crustacea toxicity	EL50 mg/l	> 10000	48 h	Daphnia magna	REACH Registration Dossier
	Fish toxicity	NOEC mg/l	>= 1000	14 d	Oncorhynchus mykiss (previous name: Salmo gairdner)	REACH Registration Dossier
64742-55-8	Distillates (petroleum), hydrotreated light paraffinic; Baseoil - unspecified					
	Acute fish toxicity	LL50 mg/l	> 100	96 h	Pimephales promelas	REACH Registration Dossier
	Acute crustacea toxicity	EL50 mg/l	> 10000	48 h	Daphnia magna	REACH Registration Dossier
	Fish toxicity	NOEC mg/l	>= 1000	14 d	Oncorhynchus mykiss (previous name: Salmo gairdner)	REACH Registration Dossier
91648-65-6	1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol					
	Acute fish toxicity	LL50 mg/l	> 1000	96 h	Pimephales promelas	Study report (1985)
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Pseudokirchneriella subcapitata	Study report (2012)
	Acute crustacea toxicity	EL50 mg/l	< 100	48 h	Daphnia magna	Study report (2005)

12.2. Persistence and degradability

Not readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

BCF

CAS No	Chemical name	BCF	Species	Source
91648-65-6	1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-nonanethiol	15,7	Fish, not further specified.	Study report (2013)

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

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

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

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

Inland waterways transport (ADN)

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

Marine transport (IMDG)

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

Air transport (ICAO-TI/IATA-DGR)

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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

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

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EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 75

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

Skin resorption/Sensitization:

Causes allergic hypersensitivity reactions.

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): 1,2,3,4,5,6,7,8,9,10,11,12,13,15,16.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
intérieures)

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains Alkylamine trialkyldithiophosphate. May produce an allergic reaction.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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