

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Rhepanol-A1 Farbe

Revision date: 20.09.2016

Product code: RCSO-FDT-028R

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

1.1. Product identifier

Rhepanol-A1 Farbe

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

Use of the substance/mixture

flame retardant

Uses advised against

Only use for the intended purpose.

The product is intended for professional use.

1.3. Details of the supplier of the safety data sheet

Company name:	FDT Flachdach Technologie GmbH & Co. KG		
Street:	Eisenbahnstraße 6-8		
Place:	D-68199 Mannheim		
Telephone:	+49 (621) 8504100	Telefax:	+49 (621) 8504200
e-mail:	kundenservice@fdt.de		
Contact person:	Marco Anderer	Telephone:	+49 (621) 8504563
e-mail:	marco.anderer@fdt.de		
Internet:	http://www.fdt.de		
Responsible Department:	Arbeitssicherheit und Umweltschutz		

1.4. Emergency telephone number:

Poison Control Center (Mayence, GER): +49 (0)6131 - 19240 (24h - de, en)
Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Skin corrosion/irritation: Skin Irrit. 2

Reproductive toxicity: Repr. 2

Specific target organ toxicity - single exposure: STOT SE 3

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Highly flammable liquid and vapour.

Causes skin irritation.

Suspected of damaging the unborn child.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Toluene

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified

Signal word: Danger

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Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P405	Store locked up.
P501	Do not discard content/container with household waste and forward for disposal according to regional/national guidelines.

2.3. Other hazards

The components in this mixture do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
108-88-3	Toluene			50-100 %
	203-625-9		01-2119471310-51	
	Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H225 H361d H315 H336 H373 H304			
7429-90-5	aluminium powder (stabilised)			5-<15 %
	231-072-3	013-002-00-1		
	Water-react. 2, Flam. Sol. 1; H261 H228			
64742-48-9	Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha			1-<5 %
	265-150-3	649-327-00-6		
	Flam. Liq. 3, Acute Tox. 3, Asp. Tox. 1; H226 H331 H304 EUH066			
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified			1-<5 %
	265-199-0	649-356-00-4		
	Flam. Liq. 3, STOT SE 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H335 H336 H304 H411 EUH066			

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

Further Information

There is the following note: The classification of CAS 64742-48-9 and CAS 64742-95-6 as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 wt% benzene (EINECS No 200-753-7). If the substance is not classified as a carcinogen, so at least the safety (102) -260-262-301 + 310-331 (Table 3.1) or the S phrases (2) -23-24-62 (Table 3.2) apply. This note applies only to certain complex oil-derived substances in Part 3 of this regulation.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of troubles or persistent symptoms, consult an doctor/physician.

Remove persons from danger area and lie them down. Never orally infuse something to an unconscious person. No special first aid measures necessary. A vomiting, supine person must be brought into recovery position.

After inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of irregular breathing or respiratory arrest, perform artificial respiration.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin irritation, consult a physician.

After contact with eyes

IF IN EYES: 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.

After ingestion

Rinse mouth, spit liquid again. Do NOT induce vomiting. Let water be drunken in little sips (dilution effect). Call a physician immediately. Aspiration hazard.

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

Following inhalation: May cause drowsiness or dizziness.

After skin contact: Causes skin irritation.

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Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

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

Carbon dioxide (CO₂). Extinguishing powder. Water spray. Fight larger fires with water spray jet or alcohol-resistant foam.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Vapours may form explosive mixtures with air. Vapours are heavier than air and will spread at floor level. Thermal decomposition can lead to harmful gases and vapours.

5.3. Advice for firefighters

Co-ordinate fire-fighting measures to the fire surroundings. Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Keep away from sources of ignition - No smoking. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. 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

Safe handling: see section 7
Personal precautions: refer to section 8.
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation as well as local exhaustion at critical locations. Handle and open container with care.

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store only in original container. Keep container tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)

flame retardant

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
7429-90-5	Aluminium metal, respirable dust	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
108-88-3	Toluene	50	191		TWA (8 h)	WEL
		100	384		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	DNEL type	Exposure route	Effect	Value
108-88-3	Toluene				
		Consumer DNEL, long-term	oral		8,13 mg/kg bw/day
		Consumer DNEL, long-term	dermal		226 mg/kg bw/day
		Worker DNEL, long-term	dermal		384 mg/kg bw/day
		Consumer DNEL, acute	inhalation		226 mg/m ³
		Consumer DNEL, long-term	inhalation		56,5 mg/m ³
		Worker DNEL, acute	inhalation		343 mg/m ³
		Worker DNEL, long-term	inhalation		192 mg/m ³

PNEC values

CAS No	Substance	Environmental compartment	Value
108-88-3	Toluene		
		Freshwater	0,68 mg/l
		Freshwater sediment	16,39 mg/kg
		Micro-organisms in sewage treatment plants (STP)	13,61 mg/l
		Soil	2,89 mg/kg

8.2. Exposure controls

Protective and hygiene measures

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.
Avoid skin, eye and clothing contact. After contact with skin, wash immediately with plenty of water and soap or a suitable cleaning agent.

Eye/face protection

Tightly fitting safety glasses with side shields.

Hand protection

Protect skin by using skin protective cream. Wear suitable gloves.
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.

Skin protection

Full cover clothing covering arms and legs.

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Respiratory protection

Use protective filter mask in case of short-term and low exposure; in case of intense or longer exposure, use respiratory protection device operating independently from circulating air.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	silver grey
Odour:	characteristic

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point:	not determined
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Initial boiling point and boiling range:	110 °C
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Flash point:	4 °C
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Flammability

Gas:	not determined
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Explosive properties

The product is not explosive, however, formation of explosive mixtures are possible.

Lower explosion limits:	1,3 vol. %
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Upper explosion limits:	7,0 vol. %
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Ignition temperature:	535 °C
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Auto-ignition temperature

Gas:	not determined
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Decomposition temperature:	not determined
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Oxidizing properties

not determined

Vapour pressure: (at 20 °C)	29 hPa
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Density (at 20 °C):	0,98 g/cm ³ ISO 2811-1
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Water solubility:	insoluble
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Partition coefficient:	not determined
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Viscosity / dynamic: (at 20 °C)	200 mPa·s ISO 2555
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Viscosity / kinematic:	not determined
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Vapour density:	not determined
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Solvent content:	74,30%
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9.2. Other information

No further information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactivity under regular conditions.

10.2. Chemical stability

The product is stable under regular conditions.

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10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

Thermal decomposition can lead to harmful gases and vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
108-88-3	Toluene			
	oral	LD50 >5000 mg/kg	Rat	
	dermal	LD50 >5000 mg/kg	Rabbit	
	inhalative (4 h) vapour	LC50 31 mg/l	Rat	
64742-48-9	Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha			
	inhalative vapour	ATE 3 mg/l		
	inhalative aerosol	ATE 0,5 mg/l		
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified			
	oral	LD50 >6800 mg/kg	Rat	
	dermal	LD50 >3400 mg/kg	Rabbit	
	inhalative (4 h) vapour	LC50 10,2 mg/l	Rat	

Irritation and corrosivity

Causes skin irritation.

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.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging the unborn child. (Toluene)

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

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

STOT-single exposure

May cause drowsiness or dizziness. (Toluene)

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Toluene)

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

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CAS No	Chemical name				
	Aquatic toxicity	Dose	[h] [d]	Species	Source
108-88-3	Toluene				
	Acute fish toxicity	LC50 24 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 12 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50 11,5 mg/l	48 h	Daphnia magna (Big water flea)	

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The components in this mixture do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Disposal according to official regulations.

Consult the local waste disposal expert about waste disposal. According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Waste disposal number of waste from residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances
Classified as hazardous waste.

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)

- 14.1. UN number:** UN 1263
14.2. UN proper shipping name: Paint
14.3. Transport hazard class(es): 3
14.4. Packing group: II

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Hazard label: 3



Classification code: F1
 Special Provisions: 163 367 640D 650
 Limited quantity: 5 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 33
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1263
14.2. UN proper shipping name: Paint
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Classification code: F1
 Special Provisions: 163 367 640D 650
 Limited quantity: 5 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1263
14.2. UN proper shipping name: Paint
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Special Provisions: 163, 367
 Limited quantity: 5 L
 Excepted quantity: E2
 EmS: F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1263
14.2. UN proper shipping name: Paint
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Special Provisions: A3 A72 A192
 Limited quantity Passenger: 1 L

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Passenger LQ:	Y341	
Excepted quantity:	E2	
IATA-packing instructions - Passenger:		353
IATA-max. quantity - Passenger:		5 L
IATA-packing instructions - Cargo:		364
IATA-max. quantity - Cargo:		60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No special precautions known.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 28: Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha

Entry 29: Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified

Entry 40: aluminium powder (stabilised)

Entry 48: Toluene

2010/75/EU (VOC): 728,1 g/l

2004/42/EC (VOC): 74,30%

Information according to 2012/18/EU P5c FLAMMABLE LIQUIDS

(SEVESO III):

Additional information

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable

Regulation (EC) No. 648/2004 (Detergents regulation): not applicable

REGULATION (EC) No 850/2004 on persistent organic pollutants: not applicable

REGULATION (EC) No 689/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

National regulatory information

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Toluene

SECTION 16: Other information

Changes

Version 1,00 - Creation - 20.09.2016

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)

BImSchV (Fed.Imm.Prot.Act): Directive on the Implementation of the Federal Immission Protection Act

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CAS: Chemical Abstracts Service
EC: Effective Concentration
EG: European Community (Europäische Gemeinschaft)
EN: European Norm
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of ships carrying Dangerous Chemicals in Bulk
ICAO: International Civil Aviation Organization
IMDG: International Maritime Code for Dangerous Goods
CLP: Classification, Labeling, Packaging
IUCLID: International Uniform Chemical Information Database
LC: Lethal concentration
LD: Lethal dose
log Kow: Octanol/water partition coefficient
MARPOL: Maritime Pollution Convention = Convention for the Prevention of Maritime Pollution from Ships
OECD: Organisation for Economic Co-operation and Development
PBT: Persistent, bio-cumulative, toxic
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail
TRGS: Technische Regeln für Gefahrstoffe
VOC: Volatile Organic Compounds
vPvB: very persistent and very bio-cumulative
VwVwS: Administrative Regulation for Water Pollutants
WGK: German Water Hazard Class
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
DNEL: Derived No Effect Level
PNEC: Predicted No Effect Concentration
TLV: Threshold Limiting Value
STOT: Specific Target Organ Toxicity

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

REACHECK Solutions GmbH, Frohsinnstraße 28, 63739 Aschaffenburg, Germany
Phone: +49 (0)6021 - 1 50 86-0, Fax: +49 (0)6021 - 1 50 86-77, E-Mail: eu-sds@reacheck.eu,
www.reacheck.eu

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