Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) No 453/2010

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

1.1. **product identifiers**

Article No. (manufacturer/supplier): 22140000b
Identification of the substance or mixture CITRUS-TERPENTINERSATZ

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

Relevant identified uses:
Artists supply and hobby preparations
Coatings and paints, thinners, paint removers

1.3. **Details of the supplier of the safety data sheet**

Supplier (manufacturer/importer/downstream user/distributor):
Daler-Rowney Ltd
Peacock Lane
Bracknell, RG12 8SS
ENGLAND
Telephone: +44 (0) 1344 461083
Telefax: +44 (0) 1344 486511

Dept. responsible for information:

E-mail Philip.Gray@daler-rowney.com

1.4. **Emergency telephone number**

Emergency telephone: +44 (0) 1344 461000

SECTION 2: Hazards identification

2.1. **Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

2.2. **Label elements**

The product is classified and labelled according to EC directives or corresponding national laws.

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Danger

Hazard statements

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H304	May be fatal if swallowed and enters airways.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P102	Keep out of the reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing vapours.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P262	Do not get in eyes, on skin, or on clothing.

contains:

Orange, sweet, ext.
Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Supplemental Hazard information (EU)
not applicable

2.3. **Other hazards**

SECTION 3: Composition / information on ingredients

3.2. **Mixtures**

Product description / chemical characterization

Description Solvents/Thinner

Hazardous ingredients

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
919-857-5 64742-48-9 649-327-00-6	01-2119463258-33 Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / STOT SE 3 H336	50 - 100
232-433-8 8028-48-6	01-2119493353-35-xxxx Orange, sweet, ext. Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Asp. Tox. 1 H304 / Aquatic Acute 1 H400 / Aquatic Chronic 2 H411 / Flam. Liq. 3 H226	12,5 - 20
918-668-5 649-356-00-4	01-2119455851-35-xxxx Hydrocarbons, C9, aromatics STOT SE 3 H335 / STOT SE 3 H336 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411 / Flam. Liq. 3 H226	12,5 - 20

Additional information
Full text of classification: see section 16

SECTION 4: First aid measures

4.1. **Description of first aid measures**

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation
Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact
Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion
If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

4.2. **Most important symptoms and effects, both acute and delayed**
In all cases of doubt, or when symptoms persist, seek medical advice.

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

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media
alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Extinguishing media which must not be used for safety reasons:
strong water jet

5.2. **Special hazards arising from the substance or mixture**
Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage. Vapours form explosive mixtures with air.

5.3. **Advice for firefighters**
Provide a conveniently located respiratory protective device. Do not allow water used to extinguish fire to enter drains, ground or waterways. Cool closed containers that are near the source of the fire.

SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**
Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**
Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations. Vapours form explosive mixtures with air.

6.3. **Methods and material for containment and cleaning up**
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. **Reference to other sections**
Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. **Precautions for safe handling**

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Precautions against fire and explosion:
Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. **Conditions for safe storage, including any incompatibilities**

Requirements for storage rooms and vessels
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (BGR 132)".

Hints on joint storage
Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions
Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. **Specific end use(s)**
Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**
Occupational exposure limit values:

INDEX No. not applicable / CAS No.

DNEL:

Hydrocarbons, C9, aromatics
INDEX No. 649-356-00-4 / EC No. 918-668-5
DNEL long-term dermal (systemic), Workers: 25 mg/kg
DNEL long-term inhalative (systemic), Workers: 150 mg/m³
DNEL long-term oral (repeated), Consumer: 11 mg/kg
DNEL long-term dermal (local), Consumer: 11 mg/kg
DNEL acute inhalative (local), Consumer: 32 mg/m³

Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics
INDEX No. 649-327-00-6 / EC No. 919-857-5 / CAS No. 64742-48-9
DNEL long-term dermal (systemic), Workers: 208 mg/kg bw/day
DNEL long-term inhalative (systemic), Workers: 871 mg/m³
DNEL long-term oral (repeated), Consumer: 125 mg/kg bw/day
DNEL long-term dermal (systemic), Consumer: 125 mg/kg bw/day
DNEL acute inhalative (systemic), Consumer: 900 mg/m³
DNEL long-term inhalative (systemic), Consumer: 185 mg/m³

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Occupational exposure controls

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)
Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye protection

Wear closely fitting protective glasses in case of splashes.

Protective clothing

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties**

Appearance:	Liquid
Physical state:	Liquid
Colour:	refer to label
Odour:	characteristic

Safety relevant basis data		Unit	Method	Remark
Flash point:	43	°C	DIN 53213	
Ignition temperature in °C:	235	°C		
Lower explosion limit:	0,7	Vol-%		
Upper explosion limit:	7	Vol-%		
Vapour pressure at 20 °C::	2,54			
Density at 20 °C::	1,00	g/cm³		
Water solubility (g/L):	insoluble			
pH at 20 °C::	-			
Viscosity at 20 °C::	21 s 3 mm		EN ISO 2431	
Solvent separation test (%):	< 3	%		

boiling point in °C at 101,3 kPa 155 °C

9.2. **Other information:**

SECTION 10: Stability and reactivity

10.1. **Reactivity**

10.2. **Chemical stability**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions. Vapours form explosive mixtures with air.

10.4. **Conditions to avoid**
Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
No data on preparation itself available.

11.1. **Information on toxicological effects**

Acute toxicity

Orange, sweet, ext.
oral, LD50, Rat: 5700 mg/kg
dermal, LD50, Rat: > 2000 mg/kg
dermal, LD50, Rabbit: > 5000 mg/kg

Hydrocarbons, C9, aromatics
oral, LD50, Rat: 3592 mg/kg
dermal, LD50, Rat: > 3160 mg/kg
inhalative (vapours), LC50, Rat: > 10.2 mg/l (4 h)

Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics
oral, LD50, Rat: > 5000 mg/kg
dermal, LD50, Rabbit: > 5000 mg/kg
Method: OECD 402
inhalative (vapours), LC50, Rat: > 5 mg/l (4 h)

skin corrosion/irritation; Serious eye damage/eye irritation

Causes skin irritation.

Orange, sweet, ext.
Skin (4 h)
Irritating to skin.

Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Skin (4 h)
mild irritant.; Prolonged/repetitive skin contact may cause skin defattening or dermatitis.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Orange, sweet, ext.
Skin:
May cause sensitization by skin contact.

Specific target organ toxicity

May cause drowsiness or dizziness.

Aspiration hazard

May be fatal if swallowed and enters airways.

Practical experience/human evidence

Other observations:
Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Remark

There is no information available on the preparation itself .

SECTION 12: Ecological information

overall evaluation

Classification according to Regulation (EC) No 1272/2008 [CLP]
There is no information available on the preparation itself .
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

Orange, sweet, ext.
Fish toxicity, LC50, Pimephales promelas (fathead minnow): 0.7 mg/l (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 0.67 mg/l (48 h)
Method: OECD 202

Hydrocarbons, C9, aromatics
Fish toxicity, LC50, fish 1 - 10 mg/l (96 h)
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 3.2 mg/l (48 h)

Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): > 100 mg/l (96 h)
Method: OECD 203
Daphnia toxicity, EC50, Daphnia magna (Big water flea): > 1000 mg/l (48 h)
Method: OECD 202
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 1000 mg/l (72 h)
Method: OECD 201

Long-term Ecotoxicity

Toxic to aquatic life with long lasting effects.

Orange, sweet, ext.
Daphnia toxicity, EC50: 35.1 mg/l (48 h)

Hydrocarbons, C9, aromatics
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 9.2 mg/l (96 h)
Fish toxicity, NOEC, Oncorhynchus mykiss (Rainbow trout): 1.23 mg/l (28 D)
Algae toxicity, NOEC, Daphnia magna (Big water flea): 2.14 mg/l (21 D)

12.2. **Persistence and degradability**

Orange, sweet, ext.
, OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C: 72 - 83.4 % (28 D)
Readily biodegradable (according to OECD criteria).

Hydrocarbons, C9, aromatics
:
Photo-chemical elimination

Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, <2% aromatics
:
Photo-chemical elimination; The substance is not soluble in water.; Readily biodegradable (according to OECD criteria)

12.3. **Bioaccumulative potential**

Orange, sweet, ext.
Bioconcentration factor (BCF): 32 - 156

Hydrocarbons, C9, aromatics
Partition coefficient: n-octanol/water: 3.7 - 6.7

12.4. **Mobility in soil**

Toxicological data are not available.

12.5. **Results of PBT assessment**

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

12.6. **Other adverse effects**

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product
Recommendation
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 proposed waste codes/waste designations in accordance with EWC
140603* other solvents and solvent mixtures

packaging
Recommendation
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste. Send to a collecting point for used paints.

SECTION 14: Transport information

14.1. **UN number**

UN 1993

14.2. **UN proper shipping name**

Land transport (ADR/RID):	Flammable liquid, n.o.s. (Kohlenwasserstoffe, C9-11, n-Alkane, Isoalkane, cyclische Verbindungen, <2% Aromaten)
Sea transport (IMDG):	FLAMMABLE LIQUID, N.O.S. (Kohlenwasserstoffe, C9-11, n-Alkane, Isoalkane, cyclische Verbindungen, <2% Aromaten)
Air transport (ICAO-TI / IATA-DGR):	Flammable liquid, n.o.s. (Kohlenwasserstoffe, C9-11, n-Alkane, Isoalkane, cyclische Verbindungen, <2% Aromaten)

14.3. **Transport hazard class(es)**

3

14.4. **Packing group**

III

14.5. **Environmental hazards**

Land transport (ADR/RID)	UMWELTGEFÄHRDEND
Marine pollutant	p / Orange terpene

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

tunnel restriction code	D/E

Sea transport (IMDG)

EmS-No.	F-E, S-E

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 legislation

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

VOC-value (in g/L) ISO 11890-2: 811
VOC-value (in g/L) ASTM D 2369: 811

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations, restrictions and prohibition regulations

15.2. **Chemical Safety Assessment**

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

EC No. CAS No.	Chemical name	REACH No.
232-433-8 8028-48-6	Orange, sweet, ext.	01-2119493353-35-xxxx

SECTION 16: Other information

Full text of classification in section 3:

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic organisms.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations.Without written approval, the product must not be used for purposes different from those mentioned in chapter 1.It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations.The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) No 453/2010

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

1.1. **product identifiers**

Article No. (manufacturer/supplier):	22100000
Identification of the substance or mixture	LUKAS BALSAM-TERPENTINOEL REIN LUKAS PURE BLASAM TURPENTINE

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

Relevant identified uses:
Paints for Arts, Hobby & Craft
Artists supply and hobby preparations

Coatings and paints, thinners, paint removers

1.3. **Details of the supplier of the safety data sheet**

Supplier (manufacturer/importer/downstream user/distributor):

Daler-Rowney Ltd
Peacock Lane
Bracknell, RG12 8SS
ENGLAND

Telephone: +44 (0) 1344 461083
Telefax: +44 (0) 1344 486511

Dept. responsible for information:

E-mail Philip.Gray@daler-rowney.com

1.4. **Emergency telephone number**

Emergency telephone: +44 (0) 1344 461000

SECTION 2: Hazards identification

2.1. **Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

2.2. **Label elements**

The product is classified and labelled according to EC directives or corresponding national laws.

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Danger

Hazard statements

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H304	May be fatal if swallowed and enters airways.
H411	Toxic to aquatic life with long lasting effects.
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.

Precautionary statements

P260	Do not breathe vapour.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P102	Keep out of the reach of children.

P262 Do not get in eyes, on skin, or on clothing.

contains:

turpentine, oil

Supplemental Hazard information (EU)

not applicable

2.3. **Other hazards**

SECTION 3: Composition / information on ingredients

3.1. **Substances**

Description Solvents/Thinner

Hazardous ingredients

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
232-350-7 8006-64-2 650-002-00-6	turpentine, oil Flam. Liq. 3 H226 / Acute Tox. 4 H332 / Acute Tox. 4 H312 / Acute Tox. 4 H302 / Asp. Tox. 1 H304 / Eye Irrit. 2 H319 / Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411	50 - 100

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. **Description of first aid measures**

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Extinguishing media which must not be used for safety reasons:

strong water jet

5.2. **Special hazards arising from the substance or mixture**

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. **Advice for firefighters**

Provide a conveniently located respiratory protective device. Do not allow water used to extinguish fire to enter drains, ground or waterways. Cool closed containers that are near the source of the fire.

SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**
Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**
Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. **Methods and material for containment and cleaning up**
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. **Reference to other sections**
Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. **Precautions for safe handling**

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Precautions against fire and explosion:
Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. **Conditions for safe storage, including any incompatibilities**

Requirements for storage rooms and vessels
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (BGR 132)".

Hints on joint storage
Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions
Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. **Specific end use(s)**
Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**
Occupational exposure limit values:

turpentine, oil
INDEX No. 650-002-00-6 / EC No. 232-350-7 / CAS No. 8006-64-2
TWA: 566 mg/m3; 100 ppm
STEL: 850 mg/m3; 150 ppm

Additional information
TWA : long-term occupational exposure limit value
STEL : short-term occupational exposure limit value

Ceiling : peak limitation

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Occupational exposure controls

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)
Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye protection

Wear closely fitting protective glasses in case of splashes.

Protective clothing

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties**

Appearance:	
Physical state	Liquid
Colour	clear
Odour	characteristic

Safety relevant basis data		Unit	Method	Remark
Flash point:	36	°C	DIN 53213	
Ignition temperature in °C:	220	°C		
Lower explosion limit	0,7	Vol-%		
Upper explosion limit	6,1	Vol-%		
Vapour pressure at 20 °C::	2,5			
Density at 20 °C::	0,86	g/cm³		
Water solubility (g/L)	insoluble			
pH at 20 °C::	-			
Viscosity at 20 °C:	21 s 3 mm		EN ISO 2431	
Solvent separation test (%)	< 3	%		
Solid content (%):	0,00	Wt %		
	100	Wt %		
	0	Wt %		
boiling point in °C at 101,3 kPa	150	°C		

9.2. **Other information:**

SECTION 10: Stability and reactivity

10.1. **Reactivity**

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.Materials to avoid: Nitric acid, Fluorine, tin tetrachloride.

10.4. **Conditions to avoid**
Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
No data on preparation itself available.

11.1. **Information on toxicological effects**

Acute toxicity

Harmful if swallowed.

Harmful in contact with skin.

Harmful if inhaled.

turpentine, oil
oral, LD50, Rat: 5760 mg/kg

skin corrosion/irritation; Serious eye damage/eye irritation

Causes skin irritation.

Causes serious eye irritation.

turpentine, oil
Skin (4 h)
Irritating to skin.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

turpentine, oil
Skin:
May cause sensitization by skin contact.

Specific target organ toxicity

Toxicological data are not available.

Aspiration hazard

May be fatal if swallowed and enters airways.

Practical experience/human evidence

Other observations:
Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Remark

There is no information available on the preparation itself .

SECTION 12: Ecological information

overall evaluation
Classification according to Regulation (EC) No 1272/2008 [CLP]
There is no information available on the preparation itself .
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

turpentine, oil
Daphnia toxicity, EC50: 14.1 mg/l (48 h)

Long-term Ecotoxicity

Toxic to aquatic life with long lasting effects.

turpentine, oil
Fish toxicity, LC50 (96 h)

12.2. **Persistence and degradability**
Toxicological data are not available.

12.3. **Bioaccumulative potential**
Toxicological data are not available.

12.4. **Mobility in soil**
Toxicological data are not available.

12.5. **Results of PBT assessment**

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. **Other adverse effects**

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product
Recommendation
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 proposed waste codes/waste designations in accordance with EWC
140603* other solvents and solvent mixtures

packaging
Recommendation
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste. Send to a collecting point for used paints.

SECTION 14: Transport information

14.1. **UN number**

UN 1299

14.2. **UN proper shipping name**

Land transport (ADR/RID):	Turpentine
Sea transport (IMDG):	TURPENTINE
Air transport (ICAO-TI / IATA-DGR):	Turpentine

14.3. **Transport hazard class(es)**

3

14.4. **Packing group**

III

14.5. **Environmental hazards**

Land transport (ADR/RID)	UMWELTGEFÄHRDEND
Marine pollutant	p / turpentine

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

tunnel restriction code	D/E

Sea transport (IMDG)

EmS-No.	F-E, S-E

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 legislation

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

VOC-value (in g/L) ISO 11890-2:	860
VOC-value (in g/L) ASTM D 2369:	860

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations, restrictions and prohibition regulations

15.2. **Chemical Safety Assessment**

For this substance a chemical safety assessment has not been carried out.

16. Other information

Full text of classification in section 3:

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations.Without written approval, the product must not be used for purposes different from those mentioned in chapter 1.It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations.The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

Annex

At present, data / information on exposure scenarios are not available, so that an evaluation of the preperation cannot yet be made.

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) No 453/2010

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

1.1. **product identifiers**

Article No. (manufacturer/supplier)	22180000
Identification of the substance or mixture	LUKAS Terpentinersatz, geruchlos LUKAS Turpentine Substituion odourless
REACH registration No.	**01-2119472146-39**

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

Relevant identified uses:
Paints for Arts, Hobby & Craft

1.3. **Details of the supplier of the safety data sheet**

Supplier (manufacturer/importer/downstream user/distributor):

Daler-Rowney Ltd
Peacock Lane
Bracknell, RG12 8SS
ENGLAND
Telephone: +44 (0) 1344 461083
Telefax: +44 (0) 1344 486511

Dept. responsible for information:

E-mail Philip.Gray@daler-rowney.com

1.4. **Emergency telephone number**

Emergency telephone: +44 (0) 1344 461000

SECTION 2: Hazards identification

2.1. **Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]

This substance is classified as dangerous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.

2.2. **Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Danger

Hazard statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P102	Keep out of the reach of children.
P262	Do not get in eyes, on skin, or on clothing.

contains:

Hydrocarbons, C11-C12, Isoalkanes, <2% Aromatics

Supplemental Hazard information (EU)

EUH066	Repeated exposure may cause skin dryness or cracking.

2.3. **Other hazards**

SECTION 3: Composition / information on ingredients

3.1. **Substances**

Product description / chemical characterization

Description Solvents/Thinner

Hazardous ingredients

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. INDEX No.	REACH No. Chemical name classification	Wt % Remark
918-167-1 64741-65-7	01-2119472146-39 Hydrocarbons, C11-C12, Isoalkanes, <2% Aromatics Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / Aquatic Chronic 4 H413	50 - 100

Additional information
Full text of H-phrases: see section 16.

SECTION 4: First aid measures

4.1. **Description of first aid measures**

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation
Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact
Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion
If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

4.2. **Most important symptoms and effects, both acute and delayed**
In all cases of doubt, or when symptoms persist, seek medical advice.

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

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media:
alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Extinguishing media which must not be used for safety reasons:
strong water jet

5.2. **Special hazards arising from the substance or mixture**
Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. **Advice for firefighters**
Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**
Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**
Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. **Methods and material for containment and cleaning up**
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. **Reference to other sections**

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. **Precautions for safe handling**

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Precautions against fire and explosion:
Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. **Conditions for safe storage, including any incompatibilities**

Requirements for storage rooms and vessels
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRBS 2153)".

Hints on joint storage
Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions
Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. **Specific end use(s)**
Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**
Occupational exposure limit values:

INDEX No. not applicable / CAS No.

8.2. **Exposure controls**
Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Occupational exposure controls

Respiratory protection
If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection
For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)
Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye protection
Wear closely fitting protective glasses in case of splashes.

Protective clothing
Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures
After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls
Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties**

Appearance:

Physical state	Liquid
Colour	clear
Odour	characteristic

Safety relevant basis data		Unit	Method	Remark
Flash point:	60	°C	DIN 53213	
Ignition temperature in °C:	355	°C		
Lower explosion limit:	0,6	Vol-%		
Upper explosion limit:	6	Vol-%		
Vapour pressure at 20 °C::	0,07			
Density at 20 °C::	0,76	g/cm³		
Water solubility (g/L):	insoluble			
pH at 20 °C::	-			
Viscosity at 20 °C::	1,85	mm²/s		
Solvent separation test (%):	< 3	%	ADR/RID	
Solid content (%):	0,00	Wt %		
	100	Wt %		
	0	Wt %		

9.2. **Other information**

SECTION 10: Stability and reactivity

10.1. **Reactivity**

10.2. **Chemical stability**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**
Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

No data on preparation itself available.

11.1. **Information on toxicological effects**

Acute toxicity

Hydrocarbons, C11-C12, Isoalkanes, <2% Aromatics
oral, LD50, Rat: > 5000 mg/kg
Method: OECD 401
dermal, LD50, Rabbit: > 5000 mg/kg

Irritant and corrosive effects

Hydrocarbons, C11-C12, Isoalkanes, <2% Aromatics
Skin (4 h)
Causes mild skin irritation.
eyes: evaluation Not an irritant.

Sensitisation

Toxicological data are not available.

Specific target organ toxicity

Toxicological data are not available.

Aspiration hazard

May be fatal if swallowed and enters airways.

Practical experience/human evidence

Other observations:
Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

This substance does not meet the criteria for classification as CMR category 1 or 2 according to 67/548/EEC.

Remark

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified according to the toxicological dangers.See chapters 2 and 15 for details.

SECTION 12: Ecological information

overall evaluation
There is no information available on the preparation itself .
Do not allow to enter into surface water or drains.

12.1. **Toxicity**
Toxicological data are not available.

12.2. **Persistence and degradability**
Toxicological data are not available.

12.3. **Bioaccumulative potential**
Toxicological data are not available.

12.4. **Mobility in soil**
Toxicological data are not available.

12.5. **Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. **Other adverse effects**

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product
Recommendation
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 proposed waste codes/waste designations in accordance with EWC
140603* other solvents and solvent mixtures

packaging
Recommendation
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. **UN number**

UN 1268

14.2. **UN proper shipping name**

Land transport (ADR/RID):	Petroleum distillates, n.o.s.
Sea transport (IMDG):	PETROLEUM DESTILLATES, N.O.S.

Air transport (ICAO-TI / IATA-DGR): Petroleum distillates, n.o.s.

14.3. **Transport hazard class(es)**

3

14.4. **Packing group**

III

14.5. **Environmental hazards**

Land transport (ADR/RID) not applicable

Marine pollutant not applicable

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

tunnel restriction code D/E

Sea transport (IMDG)

EmS-No. F-E, S-E

14.7. **Transport in bulk according to Annex II of MARPOL 73/78 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 legislation

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

VOC-value (in g/L) ISO 11890-2: 761
VOC-value (in g/L) ASTM D 2369: 761

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations, restrictions and prohibition regulations

15.2. **Chemical Safety Assessment**

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

EC No. CAS No.	Chemical name	REACH No.
918-167-1 64741-65-7	Hydrocarbons, C11-C12, Isoalkanes, <2% Aromatics	01-2119472146-39

SECTION 16: Other information

Relevant R-and H-phrases (Number and full text):

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 4 / H413	Hazardous to the aquatic environment	May cause long lasting harmful effects to aquatic life.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Further information

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) No 453/2010

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

1.1. **product identifiers**

Article No. (manufacturer/supplier): 22110000
Identification of the substance or mixture: LUKAS TERPENTINÖL REKTIFIZIERT
LUKAS RECTIFIED BALSAM TURPENTINE

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

Relevant identified uses:
Paints for Arts, Hobby & Craft
Artists supply and hobby preparations

Coatings and paints, thinners, paint removers

1.3. **Details of the supplier of the safety data sheet**

Supplier (manufacturer/importer/downstream user/distributor):
Daler-Rowney Ltd
Peacock Lane
Bracknell, RG12 8SS
ENGLAND
Telephone: +44 (0) 1344 461083
Telefax: +44 (0) 1344 486511

Dept. responsible for information:

E-mail: Philip.Gray@daler-rowney.com

1.4. **Emergency telephone number**

Emergency telephone: +44 (0) 1344 461000

SECTION 2: Hazards identification

2.1. **Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

2.2. **Label elements**

The product is classified and labelled according to EC directives or corresponding national laws.

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Danger

Hazard statements

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H304	May be fatal if swallowed and enters airways.
H411	Toxic to aquatic life with long lasting effects.
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.

Precautionary statements

P260	Do not breathe vapour.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P102	Keep out of the reach of children.

P262 Do not get in eyes, on skin, or on clothing.

contains:

turpentine, oil

Supplemental Hazard information (EU)

not applicable

2.3. **Other hazards**

SECTION 3: Composition / information on ingredients

3.1. **Substances**

Description Solvents/Thinner

Hazardous ingredients

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
232-350-7 8006-64-2 650-002-00-6	turpentine, oil Flam. Liq. 3 H226 / Acute Tox. 4 H302 / Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Skin Sens. 1 H317 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411	50 - 100

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. **Description of first aid measures**

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Extinguishing media which must not be used for safety reasons:

strong water jet

5.2. **Special hazards arising from the substance or mixture**

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. **Advice for firefighters**

Provide a conveniently located respiratory protective device. Do not allow water used to extinguish fire to enter drains, ground or waterways. Cool closed containers that are near the source of the fire.

SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**
Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**
Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. **Methods and material for containment and cleaning up**
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. **Reference to other sections**
Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. **Precautions for safe handling**

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Precautions against fire and explosion:
Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. **Conditions for safe storage, including any incompatibilities**

Requirements for storage rooms and vessels
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (BGR 132)".

Hints on joint storage
Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions
Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. **Specific end use(s)**
Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**
Occupational exposure limit values:

turpentine, oil
INDEX No. 650-002-00-6 / EC No. 232-350-7 / CAS No. 8006-64-2
TWA: 566 mg/m3; 100 ppm
STEL: 850 mg/m3; 150 ppm

Additional information
TWA : long-term occupational exposure limit value
STEL : short-term occupational exposure limit value

Ceiling : peak limitation

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Occupational exposure controls

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)
Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye protection

Wear closely fitting protective glasses in case of splashes.

Protective clothing

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties**

Appearance:	
Physical state	Liquid
Colour	clear
Odour	characteristic

Safety relevant basis data		Unit	Method	Remark
Flash point:	36	°C	DIN 53213	
Ignition temperature in °C:	220	°C		
Lower explosion limit	0,7	Vol-%		
Upper explosion limit	6	Vol-%		
Vapour pressure at 20 °C::	5			
Density at 20 °C::	0,86	g/cm³		
Water solubility (g/L)	insoluble			
pH at 20 °C::	-			
Viscosity at 20 °C:	22 s 3 mm		EN ISO 2431	
Solvent separation test (%)	< 3	%		
Solid content (%):	0,00	Wt %		
	100	Wt %		
	0	Wt %		
boiling point in °C at 101,3 kPa	150	°C		

9.2. **Other information:**

SECTION 10: Stability and reactivity

10.1. **Reactivity**

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.Materials to avoid: Nitric acid, Fluorine, tin tetrachloride.

10.4. **Conditions to avoid**
Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
No data on preparation itself available.

11.1. **Information on toxicological effects**

Acute toxicity

Harmful if swallowed.

Harmful in contact with skin.

Harmful if inhaled.

turpentine, oil
oral, LD50, Rat: 5760 mg/kg

skin corrosion/irritation; Serious eye damage/eye irritation

Causes skin irritation.

Causes serious eye irritation.

turpentine, oil
Skin (4 h)
Irritating to skin.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

turpentine, oil
Skin:
May cause sensitization by skin contact.

Specific target organ toxicity

Toxicological data are not available.

Aspiration hazard

May be fatal if swallowed and enters airways.

Practical experience/human evidence

Other observations:
Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Remark

There is no information available on the preparation itself .

SECTION 12: Ecological information

overall evaluation
Classification according to Regulation (EC) No 1272/2008 [CLP]
There is no information available on the preparation itself .
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

Toxicological data are not available.

Long-term Ecotoxicity

Toxic to aquatic life with long lasting effects.

12.2. **Persistence and degradability**
Toxicological data are not available.

12.3. **Bioaccumulative potential**
Toxicological data are not available.

12.4. **Mobility in soil**
Toxicological data are not available.

12.5. **Results of PBT assessment**

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. **Other adverse effects**

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product
Recommendation
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 proposed waste codes/waste designations in accordance with EWC
140603* other solvents and solvent mixtures

packaging
Recommendation
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste. Send to a collecting point for used paints.

SECTION 14: Transport information

14.1. **UN number**

UN 1299

14.2. **UN proper shipping name**

Land transport (ADR/RID):	Turpentine
Sea transport (IMDG):	TURPENTINE
Air transport (ICAO-TI / IATA-DGR):	Turpentine

14.3. **Transport hazard class(es)**

3

14.4. **Packing group**

III

14.5. **Environmental hazards**

Land transport (ADR/RID)	UMWELTGEFÄHRDEND
Marine pollutant	p / Turpentine

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

tunnel restriction code	D/E

Sea transport (IMDG)

EmS-No.	F-E, S-E

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 legislation

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

VOC-value (in g/L) ISO 11890-2:	860
VOC-value (in g/L) ASTM D 2369:	860

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations, restrictions and prohibition regulations

15.2. **Chemical Safety Assessment**

For this substance a chemical safety assessment has not been carried out.

16. Other information

Full text of classification in section 3:

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations.Without written approval, the product must not be used for purposes different from those mentioned in chapter 1.It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations.The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

Annex

At present, data / information on exposure scenarios are not available, so that an evaluation of the preperation cannot yet be made.