

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

Article No.: 02843SD07900 SD 2843 HAL  
Print date: 11.03.2015 Revision date: 13.08.2014  
Version: Issue date: 11.03.2015

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**1. Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifiers**

Article No. (manufacturer/supplier): 02843SD07900  
Identification of the substance or mixture SD 2843 HAL  
Carbon conductive ink  
(079), black

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

**Relevant identified uses:**

Coatings and paints, thinners, paint removers

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

**supplier (manufacturer/importer/downstream user/distributor)**

Lackwerke Peters GmbH & Co KG

Hooghe Weg 13

47906 Kempen

Telephone: +49-2152-2009-0

Telefax: +49-2152-2009-70

**Dept. responsible for information:**

Arbeitssicherheit und Umweltschutz

E-mail (competent person)

asu@peters.de

**1.4. Emergency telephone number**

Emergency telephone number +49-2152-2009-78

Only available during office hours (8:00 - 16:00h).

**2. Hazards identification**

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

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

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

Flam. Liq. 3 / H226

flammable liquids

Flammable liquid and vapour.

Eye Dam. 1 / H318

Serious eye damage/eye irritation

Causes serious eye damage.

**Classification according to Directive 67/548/EEC or 1999/45/EC**

This mixture is classified as hazardous according to 1999/45/EC.

R10

Xi; R36/38

Irritant

Flammable

Irritating to eyes and skin.

**2.2. Label elements**

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

**Hazard pictograms**



**Danger**

**Hazard statements**

H226 Flammable liquid and vapour.

H318 Causes serious eye damage.

**Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P243 Take precautionary measures against static discharge.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403 + P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to industrial incineration plant.

**contains:**

2-methylpropan-1-ol

**Supplemental Hazard information (EU)**

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not applicable

**Labelling (67/548/EEC or 1999/45/EC)**



Xi Irritant

**Hazard statements**

10 Flammable  
36/38 Irritating to eyes and skin.

**Precautionary statements**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
51 Use only in well-ventilated areas.

**contains:**

not applicable

**Special provisions concerning the labelling of certain mixtures**

not applicable

2.3. **Other hazards**

**3. Composition / Information on ingredients**

3.2. **Mixtures**

**Product description / chemical characterization**

**Description**

**Hazardous ingredients**

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

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
200-661-7 67-63-0 603-117-00-0	01-2119457558-25-XXXX propan-2-ol Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	1 - 2,5
201-148-0 78-83-1 603-108-00-1	2-methylpropan-1-ol Flam. Liq. 3 H226 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / STOT SE 3 H336	2,5 - 5
203-961-6 112-34-5 603-096-00-8	2-(2-butoxyethoxy)ethanol Eye Irrit. 2 H319	20 - 25
200-751-6 71-36-3 603-004-00-6	butan-1-ol Flam. Liq. 3 H226 / Acute Tox. 4 H302 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / STOT SE 3 H336	1 - 2,5
203-632-7 108-95-2 604-001-00-2	phenol Muta. 2 H341 / Acute Tox. 3 H331 / Acute Tox. 3 H311 / Acute Tox. 3 H301 / STOT RE 2 H373 / Skin Corr. 1B H314	0,5 - 1

**Classification according to Directive 67/548/EEC or 1999/45/EC**

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
203-961-6 112-34-5 603-096-00-8	2-(2-butoxyethoxy)ethanol Xi; R36	20 - 25
201-148-0 78-83-1 603-108-00-1	2-methylpropan-1-ol R10 / Xi; R37/38-41 / R67	2,5 - 5
200-751-6 71-36-3 603-004-00-6	butan-1-ol R10 / Xn; R22 / Xi; R37/38-41 / R67	1 - 2,5

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200-661-7	01-2119457558-25-XXXX	
67-63-0	propan-2-ol	1 - 2,5
603-117-00-0	F; R11 / Xi; R36 / R67	
203-632-7		
108-95-2	phenol	0,5 - 1
604-001-00-2	Muta.Cat.3; R68 / T; R23/24/25 / Xn; R48/20/21/22 / C; R34	

**Additional information**

Full text of R-phrases: see section 16.

Full text of H-phrases: see section 16.

**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**

Remove contaminated, saturated clothing immediately. 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**

**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. Treat runoff as hazardous.

**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 chapter 13). Clean using cleansing agents. Do not use solvents.

**6.4. Reference to other sections**

Observe protective provisions (see chapter 7 and 8).

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## 7. Handling and storage

### 7.1. Precautions for safe handling

#### Advices on safe handling

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. Keep away from heat sources, sparks and open flames. 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 chapter 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.

### 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.

#### 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 5 °C and 25 °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.

## 8. Exposure controls / Personal protection

### 8.1. Control parameters

#### Occupational exposure limit values:

butan-1-ol

INDEX No. 603-004-00-6 / EC No. 200-751-6 / CAS No. 71-36-3

STEL: 154 mg/m<sup>3</sup>; 50 ppm

phenol

INDEX No. 604-001-00-2 / EC No. 203-632-7 / CAS No. 108-95-2

TWA: 20 mg/m<sup>3</sup>; 5 ppm

STEL: 39 mg/m<sup>3</sup>; 10 ppm

2-methylpropan-1-ol

INDEX No. 603-108-00-1 / EC No. 201-148-0 / CAS No. 78-83-1

TWA: 154 mg/m<sup>3</sup>; 50 ppm

STEL: 231 mg/m<sup>3</sup>; 75 ppm

propan-2-ol

INDEX No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0

TWA: 999 mg/m<sup>3</sup>; 400 ppm

STEL: 1250 mg/m<sup>3</sup>; 500 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

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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: 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 DIN EN 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.

**9. Physical and chemical properties**

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

**Appearance:**

**Physical state** liquid  
**Colour** black  
**Odour** weak

Safety relevant basis data	Unit	Method	Remark
Flash point:	35 °C	DIN 51755	
Ignition temperature in °C:	225 °C	DIN 51794	
Lower explosion limit	1,7 Vol-%		
Upper explosion limit	12,0 Vol-%		
Vapour pressure at 20 °C:	< 1 mbar		
Density at 20 °C:	1,27 g/cm <sup>3</sup>	DIN 53217	
Water solubility (g/L)	insoluble		
pH at 20 °C:	not applicable		
Viscosity at 20 °C	20000 mPa·s		
Solvent separation test (%)	< 3 %	ADR/RID	
Solid content (%):	70,31 Wt %		
solvent content:			
Organic solvents:	29 Wt %		
Water:	0 Wt %		

**9.2. Other information:**

**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 chapter 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.

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## 11. Toxicological information

No data on preparation itself available.

### 11.1. Information on toxicological effects

#### Acute toxicity

Toxicological data are not available.

#### Irritant and corrosive effects

Toxicological data are not available.

#### Sensitisation

Toxicological data are not available.

#### Specific target organ toxicity

Toxicological data are not available.

#### Aspiration hazard

Toxicological data are not available.

#### 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 preparation do not meet the criteria for classification as CMR category 1 or 2 according to 67/548/EEC.

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.

## 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 assessment

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

### 12.6. Other adverse effects

No information available.

## 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**



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080111 waste paint and varnish containing organic solvents or  
other dangerous substances

**packaging**

**Recommendation**

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

**14. Transport information**

**14.1. UN number**

Land transport (ADR/RID): 1263  
Sea transport (IMDG): not applicable  
Air transport (ICAO-TI / IATA-DGR): 1263

**14.2. UN proper shipping name**

Land transport (ADR/RID): Paint  
Air transport (ICAO-TI / IATA-DGR): Paint

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

Land transport (ADR/RID): no hazardous good of class 3  
bei Gebinden > 450 l Klasse 3  
Sea transport (IMDG): not applicable  
Air transport (ICAO-TI / IATA-DGR): 3

**14.4. Packing group**

Land transport (ADR/RID): III  
Sea transport (IMDG): not applicable  
for packages > 30 litres: III  
Air transport (ICAO-TI / IATA-DGR): 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

**Additional information**

**Land transport (ADR/RID)**

tunnel restriction code: D/E

**Sea transport (IMDG)**

EmS-No.: not applicable

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

**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: 384  
VOC-value (in g/L) ASTM D 2369: 384

**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**

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

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## 16. Other information

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

Flam. Liq. 2 / H225	flammable liquids	Highly flammable liquid and vapour.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
Flam. Liq. 3 / H226	flammable liquids	Flammable liquid and vapour.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Muta. 2 / H341	Germ cell mutagenicity	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Acute Tox. 3 / H331	Acute toxicity (inhalative)	Toxic if inhaled.
Acute Tox. 3 / H311	Acute toxicity (dermal)	Toxic in contact with skin.
Acute Tox. 3 / H301	Acute toxicity (oral)	Toxic if swallowed.
STOT RE 2 / H373	Specific target organ toxicity (repeated exposure)	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Skin Corr. 1B / H314	skin corrosion/irritation	Causes severe skin burns and eye damage.
R10		Flammable
Xn; R22	Harmful	Harmful if swallowed.
Xi; R37/38-41	Irritant	Irritating to respiratory system and skin. Risk of serious damage to eyes.
R67		Vapours may cause drowsiness and dizziness.
Muta.Cat.3; R68	Mutagenic Cat. 3 (Mut. Cat. 3)	Possible risk of irreversible effects.
T; R23/24/25	Toxic	Toxic by inhalation, in contact with skin and if swallowed.
Xn; R48/20/21/22	Harmful	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
C; R34	Corrosive	Causes burns.
F; R11	Highly flammable	Highly flammable
Xi; R36	Irritant	Irritating to eyes.

### Additional 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.

Observe technical data sheet.

## Annex

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