# DEWALT

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SECTION 1: Identification of the substance/mixture and of the company/undertaking **Product identifier CARTRIDGES - FOR TOOLS, BLANK or POWDER LOAD** Relevant identified uses of the substance or mixture and uses advised against 1.2.1 Relevant uses Cartridges for tools 1.2.2 Uses advised against None known. Details of the supplier of the safety data sheet Company DEWALT Richard Klinger Str. 11 65510 Idstein / GERMANY Phone +49 (0) 6126212302 Fax +49 (0) 6126 21 2980 Homepage www.DEWALT.eu Address enquiries to **Technical information** Colin.Thirlaway@sbdinc.com Safety Data Sheet sdb@chemiebuero.de 1.4 Emergency telephone number Advisory body CHEMTREC: +(44)-870-8200418 SECTION 2: Hazards identification Classification of the substance or mixture Expl. 1.4: H204 Fire or projection hazard. Repr. 1A: H360Df May damage the unborn child. Suspected of damaging fertility. Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. Label elements The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP). Hazard pictograms Signal word DANGER Contains: Lead 2,4,6-trinitro-m-phenylene dioxide Hazard statements H204 Fire or projection hazard. H360Df May damage the unborn child. Suspected of damaging fertility. H412 Harmful to aquatic life with long lasting effects. **Precautionary statements** P201 Obtain special instructions before use. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P250 Do not subject to grinding/shock/friction. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P308+P311 IF exposed or concerned: Call a POISON CENTER / doctor.

Special labelling

2.3 Other hazards

Human health dangers	The contained dangerous materials are not freely available with foreseeable use.
Environmental hazards	The contained dangerous materials are not freely available with foreseeable use.
Other hazards	Further hazards were not determined with the current level of knowledge.

P370+P380 In case of fire: Evacuate area.

P501 Dispose of contents/container in accordance with local/national regulation.

P405 Store locked up.

Restricted to professional users.

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# **SECTION 3: Composition / Information on ingredients**

### Product-type:

# The product is a mixture.

D [0/]		
Range [%]	] Substance	
0 - 97	7 Iron	
	CAS: 7439-89-6, EINECS/ELINCS: 231-096-4	
50 - 65	5 Copper	
	CAS: 7440-50-8, EINECS/ELINCS: 231-159-6	
15 - 32	Zinc metal (massive)	
	CAS: 7440-66-6, EINECS/ELINCS: 231-175-3	
2 - 13	3 Nitrocellulose	
	CAS: 9004-70-0, EINECS/ELINCS: Polymer	
	GHS/CLP: Expl. 1.1: H201	
0,5 - 2	0,5 - 2 Glycerol trinitrate	
CAS: 55-63-0, EINECS/ELINCS: 200-240-8, EU-INDEX: 603-034-00-x		
GHS/CLP: Acute Tox. 2: H300 H310 H330 - STOT RE 2: H373 - Aquatic Chronic 2: H411 - Unst. Expl.: H200		
0,1 - 1 Lead 2,4,6-trinitro-m-phenylene dioxide		
CAS: 15245-44-0, EINECS/ELINCS: 239-290-0, EU-INDEX: 609-019-00-4		
GHS/CLP: Unst. Expl.: H200 - Repr. 1A: H360Df - Acute Tox. 4: H302 H332 - STOT RE 2: H373 - Aquatic A H400 - Aquatic Chronic 1: H410		
Comment on com	Donent parts The structural design prevents release of the hazardous media contained therein when the unit is used for its intended purpose. SVHC (Candidate List of Substances of Very High Concern for authorisation) ≥ 0.1% CAS 15245-44-0 - Lead 2,4,6-trinitro-m-phenylene dioxide For full text of H-statements: see SECTION 16.	

# SECTION 4: First aid measures

### 4.1 Description of first aid measures

	General information	The contained dangerous materials are not freely available with foreseeable use.
	Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
	Skin contact	In case of contact with skin wash off immediately with soap and water. In the event of symptoms seek medical treatment.
	Eye contact	In case of contact with eyes rinse thoroughly and immediately with plenty of water and seek medical advice.
	Ingestion	Rinse out mouth and give plenty of water to drink. Consult a doctor immediately.
4.2	Most important symptoms and effects, both acute and delayed	

None known.

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

Treat symptomatically.

Forward this sheet to the doctor.

SECTION 5: Fire-fighting measures	
5.1 Extinguishing media	

# 5.1 Extinguishing media

Suitable extinguishing media Extinguishing media that must not be used foam, dry powder, water spray jet, carbon dioxide Full water jet

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5.2	Special hazards arising from the	substance or mixture
		Risk of formation of toxic pyrolysis products.
		Bursting Cartridges can be forcibly projected from a fire. Nitrogen oxides (NOx).
		Nillogen Oxides (NOX).
5.3	Advice for firefighters	
		Use self-contained breathing apparatus.
		Cool containers at risk with water spray jet.
		Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.
SEC	CTION 6: Accidental release measu	res
6.1	Personal precautions, protective	equipment and emergency procedures Measures are only valid for damaged systems.
		Use personal protective equipment (protective gloves, safety glasses, protective clothing).
6.2	Environmental precautions	Denoted in the desire for the desire for the second sector.
		Do not discharge into the drains/surface waters/groundwater.
6.3 Methods and material for containment and cleaning up		ment and cleaning up
		Take up mechanically.
		Dispose of absorbed material in accordance within the regulations.
6.4	Reference to other sections	
		See SECTION 8+13
SEC	CTION 7: Handling and storage	
7.1	Precautions for safe handling	
		Use only in well-ventilated areas.
		Handle with care - avoid shock, friction and impact.
		Keep away from open flames, hot surfaces and sources of ignition.
		Ground/bond container and receiving equipment.
		Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.
7.2	Conditions for safe storage, inclu	
		Keep only in original container.
		Do not store with combustible materials. Do not store together with oxidizing agents.
		Store to in accordance with national regulation.
		Keep in a well-ventilated place.
		Protect from heat/overheating.
		Store in a dry place.
7.3	Specific end use(s)	
		See product information.

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# SECTION 8: Exposure controls / personal protection

# 8.1 Control parameters

# Ingredients with occupational exposure limits to be monitored (GB)

Substance	
Glycerol trinitrate	
CAS: 55-63-0, EINECS/ELINCS: 200-240-8, EU-INDEX: 603-034-00-x	
Long-term exposure: 0,2 ppm, 1,9 mg/m <sup>3</sup>	
Short-term exposure (15-minute): 0,2 ppm, 1,9 mg/m <sup>3</sup>	

# Ingredients with occupational

# exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
Glycerol trinitrate
CAS: 55-63-0, EINECS/ELINCS: 200-240-8, EU-INDEX: 603-034-00-x
Eight hours: 0,01 ppm, 0,095 mg/m <sup>3</sup> , skin
Short-term (15-minute): 0,02 ppm, 0,19 mg/m <sup>3</sup>

# 8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
Eye protection	safety glasses
Hand protection	Leather gloves. The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Protective clothing.
Other	The contained dangerous materials are not freely available with foreseeable use.
Respiratory protection	Not required under normal conditions.
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	Comply with applicable environmental regulations limiting discharge to air, water and soil.

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**SECTION 9: Physical and chemical properties** 

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9.1	Information on basic physical and	l chemical properties
	Form	Cartridge
	Color	various
	Odor	odourless
	Odour threshold	not applicable
	pH-value	not applicable
	pH-value [1%]	not applicable
	Boiling point [°C]	not applicable
	Flash point [°C]	not applicable
	Flammability (solid, gas) [°C]	not applicable
	Lower explosion limit	not applicable
	Upper explosion limit	not applicable

no

not applicable

not determined

not applicable

not applicable

not applicable

not applicable

not determined

not applicable

not applicable

insoluble

# 9.2 Other information

**Oxidising properties** 

Bulk density [kg/m<sup>3</sup>]

Solubility in water

**Evaporation speed** 

Melting point [°C]

Density [g/ml]

Viscosity

in air

Vapour pressure/gas pressure [kPa]

Relative vapour density determined

Partition coefficient [n-octanol/water] not applicable

none

# SECTION 10: Stability and reactivity

Autoignition temperature [°C]

Decomposition temperature [°C]

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

### 10.3 Possibility of hazardous reactions

Heating may cause an explosion.

### 10.4 Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Avoid bumps, friction and impact. Strong heating. Physical demage to containers; cartridges may detonate if case is punctured.

## 10.5 Incompatible materials

See SECTION 10.3.

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### 10.6 Hazardous decomposition products

In the event of fire: See SECTION 5. Toxic gases/vapours.

# SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

### Acute toxicity

 Product

 ATE-mix, inhalative, Based on the available information, the classification criteria are not fulfilled.:

 ATE-mix, dermal, Based on the available information, the classification criteria are not fulfilled.:

 ATE-mix, oral, Based on the available information, the classification criteria are not fulfilled.:

Substance	
Copper, CAS: 7440-50-8	
D50, oral, mouse: 0,7 mg/kg (IUCLID).	
Glycerol trinitrate, CAS: 55-63-0	
D50, dermal, Rabbit: > 280 mg/kg (IUCLID).	
D50, oral, Rat: 105 mg/kg (IUCLID).	

Serious eye damage/irritation	Based on the available information, the classification criteria are not fulfilled.
Skin corrosion/irritation	Based on the available information, the classification criteria are not fulfilled.
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	May damage the unborn child. Suspected of damaging fertility. Based on the available information, the classification criteria are fulfilled. Calculation method
Carcinogenicity	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	
	Toxicological data of complete product are not available. The contained dangerous materials are not freely available with foreseeable use.

# SECTION 12: Ecological information

## 12.1 Toxicity

Substance	
Copper, CAS: 7440-50-8	
LC50, (48h), Gambusia affinis: 0,18 mg/L (IUCLID).	
Glycerol trinitrate, CAS: 55-63-0	
LC50, (96h), Lepomis macrochirus: 1,38 mg/l (IUCLID).	
EC50, (48h), Daphnia magna: 46 - 55 mg/l (IUCLID).	

# 12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	No information available.



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### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Other adverse effects

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

# SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

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

#### Product

		Dispose of as hazardous waste. Coordinate disposal with the authorities if necessary.
	Waste no. (recommended)	160401* waste ammunition
	Contaminated packaging	
		Uncontaminated packaging may be taken for recycling.
	Waste no. (recommended)	150101
EC	TION 14: Transport information	
4.1	UN number	
	Transport by land according to ADR/RID	0014
	Inland navigation (ADN)	0014
	Marine transport in accordance with IMDG	0014

Air transport in accordance with IATA 0014

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4.2	UN proper shipping name			
	Transport by land according to ADR/RID	Cartridges for tools, blank		
	- Classification Code	1.4S		
	- Label	1.4		
	- ADR LQ	5 kg		
	- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 4 (E)		
	Inland navigation (ADN)	Cartridges for tools, blank		
	- Classification Code	1.4S		
	- Label	1.4		
	Marine transport in accordance with IMDG	Cartridges for tools, blank		
	- EMS	F-B, S-X		
	- Label	1.4		
	- IMDG LQ	5kg		
	Air transport in accordance with IATA	Cartridges for tools, blank		
	- Label	1.4		
4.3	Transport hazard class(es)	•		
	Transport by land according to ADR/RID	1		
	Inland navigation (ADN)	1		
	Marine transport in accordance with IMDG	1.4 S		
	Air transport in accordance with IATA	1.4S		
4.4	Packing group Transport by land according to ADR/RID	not applicable		
	Inland navigation (ADN)	not applicable		
	Marine transport in accordance with IMDG	not applicable		



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# 14.5 Environmental hazards

Transport by land according to<br/>ADR/RIDnoInland navigation (ADN)no

Marine transport in accordance with no IMDG

Air transport in accordance with IATA no

## 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

# 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available.

SECTION 15: Regulatory information	
5.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
EEC-REGULATIONS	1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	Observe employment restrictions for young people. Observe employment restrictions for mothers-to-be and nursing mothers.
- VOC (2010/75/CE)	0%
15.2 Chemical safety assessment	
	not applicable
SECTION 16: Other information	

# 16.1 Hazard statements

(SECTION 03)

H201 Explosive; mass explosion hazard.

H411 Toxic to aquatic life with long lasting effects.

H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.

H410 Very toxic to aquatic life with long lasting effects.

H400 Very toxic to aquatic life.

H373 May cause damage to organs through prolonged or repeated exposure.

H302+H332 Harmful if swallowed or if inhaled.

H360Df May damage the unborn child. Suspected of damaging fertility.

H200 Unstable explosives.



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16.2 Abbreviations and acronyms:		
-	ADR = Accord européen relatif au transport international des marchandises Da	angereuses par
	Route	0 1
	RID = Règlement concernant le transport international ferroviaire de marchano dangereuses	lises
	ADN = Accord européen relatif au transport international des marchandises da voie de navigation intérieure	ingereuses par
	ATE = acute toxicity estimate	
	CAS = Chemical Abstracts Service	
	CLP = Classification, Labelling and Packaging	
	DMEL = Derived Minimum Effect Level	
	DNEL = Derived No Effect Level	
	EC50 = Median effective concentration	
	ECB = European Chemicals Bureau	
	EEC = European Economic Community	
	EINECS = European Inventory of Existing Commercial Chemical Substances	
	ELINCS = European List of Notified Chemical Substances	
	GHS = Globally Harmonized System of Classification and Labelling of Chemic	als
	IATA = International Air Transport Association	
	IBC-Code - International Code for the Construction and Equipment of Shins of	arnving

- IBC-Code = International Code for the Construction and Equipment of Ships carrying
- Dangerous Chemicals in Bulk

IC50 = Inhibition concentration, 50%

- IMDG = International Maritime Code for Dangerous Goods
- IUCLID = International Uniform ChemicaL Information Database
- LC50 = Lethal concentration, 50%
- LD50 = Median lethal dose
- LC0 = lethal concentration, 0%

LOAEL = lowest-observed-adverse-effect level

- MARPOL = International Convention for the Prevention of Marine Pollution from Ships
- NOAEL = No Observed Adverse Effect Level NOEC = No Observed Effect Concentration

- PBT = Persistent, Bioaccumulative and Toxic substance PNEC = Predicted No-Effect Concentration
- REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
- STP = Sewage Treatment Plant

TLV®/TWA = Threshold limit value - time-weighted average

TLV®STEL = Threshold limit value - short-time exposure limit

VOC = Volatile Organic Compounds

vPvB = very Persistent and very Bioaccumulative

16.3	16.3 Other information		
	Customs Tariff	not determined	
	Classification procedure	Expl. 1.4: H204 Fire or projection hazard. (On basis of test data) Repr. 1A: H360Df May damage the unborn child. Suspected of damaging fertility. (Calculation method)	

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)



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Modified position	SECTION 2 been added: P370+P380 In case of fire: Evacuate area.
	SECTION 2 been added: Aquatic Chronic 3
	SECTION 4 been added: Rinse out mouth and give plenty of water to drink.
	SECTION 4 been added: The contained dangerous materials are not freely available with foreseeable use.
	SECTION 6 been added: Use personal protective equipment (protective gloves, safety glasses, protective clothing).
	SECTION 6 been added: Measures are only valid for damaged systems.
	SECTION 7 been added: Store in a dry place.
	SECTION 8 been added: The contained dangerous materials are not freely available with foreseeable use.
	SECTION 8 been added: Protective clothing.
	SECTION 8 been added: safety glasses
	SECTION 8 been added: In full contact:
	SECTION 8 been added: Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
	SECTION 10 been added: Heating may cause an explosion.
	SECTION 11 been added: Based on the available information, the classification criteria are fulfilled.



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