



SDS REPORT

Report no. : GSL20190802009E
Applicant : Nantong DFORCE powertools Co., Ltd.
Address : No.18 Haosheng Road, Zhengyu Town Haimen
Product Name : Charging Drill DF1802/DF1803 Set Built-in lithium battery pack DF20V1901 20V 1500mAh 30Wh
Composition/Ingredient of The Sample : See Section 3 on the SDS
Summary : As per request, the contents and formats of the SDS are prepared in accordance with Regulation (EC) No 1907/2006, 1272/2008, Regulation (EU) No 2015/830 and are provided per attached.

Remark: This sample is likely to be classified as article and is out of scope of a SDS as set out in Regulation (EC) No 1907/2006. This SDS is generated for client's reference only.



**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

• Trade name: Charging drill DF1802/DF1803 SET(Built-in battery)1500mAh Built-in battery pack DF20V1901 2000mAh

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

• Application of the substance/ mixture: Charging drill

1.3 Details of the supplier of the safety data sheet

• Manufacturer/Supplier: Nantong DFORCE power tools Co., Ltd.

• No.18 Haosheng Road, Zhengyu Town Haimen

Tel: 13584067210

Email: zhaodapeng@strofin.com

• Only Representative/other EU contact point: No specific country, data not available.

• Further information obtainable from: Nantong DFORCE power tools Co.,Ltd.

1.4 Emergency telephone number

General in EU

Tel: 112 (Available 24 hours a day)

In China:

Zhaodapeng Tel: 13584067210(8:00 to 18:00)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification according to regulation (EC) 1272/2008: The product is not classified according to CLP Regulation.

Remark: The battery is sealed with metal and plastic, will not leak. If the sealed container broken, the electrode will present the following hazards: Toxic if swallowed; Causes severe skin burns and eye damage; May cause cancer; May damage fertility or the unborn child; Causes damage to organs; May cause an allergic skin reaction.

Classification system:

The classification is according to the latest edition of Regulation 1272/2008, and extended by company and literature data.

2.2 Label elements

• Labeling according to Regulation (EC) No 1272/2008: Not applicable

• Hazard pictograms: Not applicable

• Signal word: Not applicable

• Hazard statements: Not applicable

• Precautionary statement: Not applicable

2.3 Other hazards

• Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable



**SECTION 3: Composition/information on ingredients****3.1 Chemical characterization: Mixture****Description:** Mixture of the substances listed below with nonhazardous additions.

Component:		
CAS No.: 182442-95-1 EC No.: 695-690-9	Cobalt lithium manganese nickel oxide	25%~30%
CAS No.: 7782-42-5 EC No.: 231-955-3	Graphite	15%~20%
CAS No.: 24937-79-9 EC No.: 607-458-6	Polyvinylidene fluoride	2%~5%
CAS No.: 7440-50-8 EC No.: 231-159-6	Copper	5%~10%
CAS No.: 7429-90-5 EC No.: 231-072-3	Aluminium	5%~10%
CAS No.: 21324-40-3 EC No.: 244-334-7	Lithium Hexafluorophosphate	0.5%~3%
CAS No.: 96-49-1 EC No.: 202-510-0	Ethylene carbonate	
CAS No.: 616-38-6 EC No.: 210-478-4 Index No.: 607-013-00-6	Dimethyl carbonate	
CAS No.: 623-53-0 EC No.: 433-480-9	Ethyl methyl carbonate	
CAS No.: 105-58-8 EC No.: 203-311-1	Diethyl carbonate	1%~2%
CAS No.: 9003-07-0 EC No.: 618-352-4	Polypropylene	
CAS No.: 7440-02-0 EC No.: 231-111-4	Nickel	0.7%~1%

SECTION 4: First aid measures**4.1 Description of first aid measures****General advice:** No special immediate medical attention or special treatment required normally; if the exposure to electrode, immediately call a POISON CENTER or doctor/physician**After inhalation:** No special measures required normally; If inhale the electrode, remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.**After skin contact:** No special measures required normally; If the electrode contact with skin, Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediately call a POISON CENTER or doctor/physician.**After eye contact:** No special measures required normally; If the electrode contact with eyes, Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.**After swallowing:** No special measures required normally; If swallow the electrode, rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.**4.2 Most important symptoms and effects, both acute and delayed:** There are not any known symptoms and effects normally**4.3 Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

**SECTION 5: Fire-fighting measures**

- **5.1 Extinguishing media**
 - **Suitable extinguishing agents:** CO₂, chemical dry powder, water spray or alcohol resistant foam.
 - **5.2 Special hazards arising from the substance or mixture:** May produce corrosive vapor/ dust under fire.
 - **5.3 Advice for firefighters**
- Protective equipment:** Wear fully protective suit and mouth respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures:**
Cut off leakage source and collect spillage timely if safe do it; Ensure adequate ventilation; Wear protective gloves/protective clothing/eye protection/face protection; Avoid contact with eyes and skin; Avoid release to the environment.
- **6.2 Environmental precautions:**
Do not allow large quantities of the product to enter sewers/surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust); Do not use water to flush the leakage; Dispose contaminated material as waste according to item 13.
- **6.4 Reference to other sections:**
See section 7 for information on safe handling; See section 8 for information on personal protection equipment; See section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling:** No special precaution required normally.
- **Information about fire and explosion protection:** Normal measures for preventive fire protection.
- **7.2 Conditions for safe storage, including any non-compatibility**
- **Requirements to be met by storerooms and receptacles:** Store in a well-ventilated place. Keep cool.
- **Information about storage in one common storage facility:** Store in the original container.
- **Further information about storage conditions:** Store locked up.
- **7.3 Specific end use(s):** Charging drill



**SECTION 8: Exposure controls/personal protection****• 8.1 Control parameters****• Ingredients with limit values that require monitoring at the workplace:**

Country	Limit value - Eight hours	Limit value - Short term
7782-42-5 Graphite		
Belgium	2 mg/m ³	-
Denmark	2.5 mg/m ³ Respirable aerosol	5 mg/m ³ Respirable aerosol
Finland	2 mg/m ³	-
France	2 mg/m ³ Respirable aerosol	-
Germany (DFG)	4 mg/m ³ Inhalable aerosol; 1.5 mg/m ³ Respirable aerosol	-
Ireland	10 mg/m ³ Inhalable fraction; 4 mg/m ³ Respirable fraction	-
Latvia	2 mg/m ³	-
Spain	2 mg/m ³ Inhalable aerosol	-
Sweden	5 mg/m ³ Respirable aerosol	-
United Kingdom	10 mg/m ³ Inhalable fraction; 4 mg/m ³ Respirable fraction	-

• **DNELs:** Data not available.

• **PNECs:** Data not available.

• **Additional information:** The lists valid during the marking were used as basis.

• 8.2 Exposure controls

• **Based on the composition shown in section 3, the following measures are suggested for occupational safety measure.**

• Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice; Wash hands and face before breaks and at the end of work; See section 7 for information about design of technical facilities.

• Personal protective equipment

• **Respiration protection:** Dust mask is necessary.

• Protection of hands:**Protective gloves**

Gloves made from butyl rubber Neoprene™ rubber, nitrile rubber (thickness > 0.3mm; breakthrough times up to 480 minutes).

• Eye protection:**Safety glasses**

Protective goggles with side-shields.

• Environmental exposure controls:

Control measures must be made in accordance with Community environmental protection legislation.



**SECTION 9: Physical and chemical properties****· 9.1 Information on basic physical and chemical properties****· Appearance:**

Form	<i>Solid</i>
Color	<i>Not available</i>
Odor	<i>Odorless</i>
Odor threshold	<i>Not applicable</i>
· pH-value	<i>Not determined</i>
· Change in condition	
Melting point/melting range	<i>Not determined</i>
Boiling point and boiling range	<i>Not determined</i>
· Freezing point	<i>Not determined</i>
· Flash point	<i>Not determined</i>
· Flammability	<i>Not flammable solid</i>
· Decomposition temperature	<i>Not determined</i>
· Self-ignition	<i>Product is not self-igniting.</i>
· Danger of explosion	<i>Product does not present an explosion hazard.</i>
· Explosion limits	
Lower:	<i>Not determined</i>
Upper:	<i>Not determined</i>
· Oxidizing properties	<i>Not determined</i>
· Vapor pressure	<i>Not determined</i>
· Density	<i>Not determined</i>
· Relative density	<i>Not determined</i>
· Vapor density	<i>Not determined</i>
· Evaporation rate	<i>Not determined</i>
· Solubility in/Miscibility with	
Water	<i>Not determined</i>
· Partition coefficient (n-octanol/water)	<i>Not determined</i>
· Viscosity	
Dynamic	<i>Not applicable</i>
Kinematic	<i>Not applicable</i>
· 9.2 Other information	<i>Data not available</i>

SECTION 10: Stability and reactivity

- 10.1 Reactivity:** *No decomposition if used according to specification.*
- 10.2 Chemical stability:** *Stable under recommended storage conditions.*
- 10.3 Possibility of hazardous reactions:** *No further relevant information available.*
- 10.4 Conditions to avoid:** *High temperature.*
- 10.5 Incompatible materials:** *Strong oxidizing agent and strong acid.*
- 10.6 Hazardous decomposition products:** *No known hazardous decomposition products.*



**SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:** No animal test has been done for this product.
- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eyes damage/ irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitization:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** Not hazardous to aquatic organism normally.
- **12.2 Persistence and degradability:** Data not available.
- **12.3 Bio-accumulative potential:** Data not available.
- **12.4 Mobility in soil:** Data not available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable
- **12.6 Other adverse effects:** No further relevant information available.
- **12.7 Additional ecological information**
- **General notes:** Water hazard class 1 (German Regulation) (self-assessment): Slightly hazardous for water.
Do not allow large quantities of the product to reach ground water, water course or sewage system.

SECTION 13: Disposal consideration

- **13.1 Waste treatment methods**
- **Recommendation:** Must not be disposed together with household garbage.
- **13.2 Un-cleaned packaging**
- **Recommendation:** Dispose of contents/container in according to the local regulation.



**SECTION 14: Transport information**

The article is not subject to other provisions of IMO IMDG Code according to special provision 188. The package has passed the 1.2m drop test, meet the requirements of each applicable test in the UN Manual of Tests and criteria, Part III, sub-section 38.3. The detail information please refer to Certification for Safe Transport of Chemical Goods, (No.: 2119080376)

• 14.1 UN-Number IMDG	UN3480, UN3481
• 14.2 UN proper shipping name IMDG	Lithium Ion Batteries Lithium Ion Batteries packed with equipment OR contained in equipment.
• 14.3 Transport hazard class (es) IMDG Class Label	9 9
• 14.4 Packing group IMDG	Not applicable
• 14.5 Marine pollution	No
• 14.6 Special precautions for user	Not applicable
• 14.7 UN "Model Regulation"	-

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- MAK (German Maximum Workplace Concentration):

7440-02-0	Nickel	1
-----------	--------	---

- Directive 2012/18/EU
- Named dangerous substances-ANNEX I: None of the ingredients is listed.
- National regulations.
- Water hazard class: Water hazard class 1 (German Regulation) (self-assessment): Slightly hazardous for water.
- Other regulations, limitations and prohibitive regulations
- SVHC Candidate list of REACH Regulation Annex XIV Authorization: None of the ingredients is listed.
- REACH Regulation Annex XVII Restriction:

7440-02-0	Nickel	Entry no. 27
-----------	--------	--------------

- REACH Regulation Annex XIV Authorization List: None of the ingredients is listed.
- 15.2 Chemical safety assessment: A Chemical Safe Assessment has not been carried out.





SECTION 16: Other information

The contents and format of this SDS are in accordance with Regulation (EC) No 1907/2006, 1272/2008 and Regulation (EU) No 2015/830.

DISCLAIMER OF LIABILITY:

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bio accumulative and Toxic

SVHC: Substance of Very High Concern

LD50: Lethal dose, 50 percent

LC50: Lethal concentration, 50 percent

End of safety data sheet



This report is only for reference of scientific research and education, or internal quality control.

Unless otherwise stated, the results shown in this test report refer only to the sample(s) received and tested in laboratory, and such sample(s) are retained for 30days only. The sole responsibility of Greatesting Service (Shanghai) Co., Ltd is to ensure that this job has been performed according to our Quality System and complying contract and legal conditions. This company bear only limited liability such as within 5 times of the cost of the test item and do not undertake any joint liability caused by this document.

Reproduction of this document is only valid if it is done completely and under the written permission of Greatesting Service (Shanghai) Co., Ltd.

If you happen to have any complaints, please do it by sending email to info@greatesting.com and referring to this report number.