

LITHO SUPPLIES (UK) LTD UNIT 1-2 ASHBOURNE COURT ILKESTON, NT DE7 8EF United Kingdom

June 15, 2016

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SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830 - United Kingdom (UK)

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

| 1.1 Product identifier | |
|--|---|
| Product name | : DIA25:DIAMOND PROCESS CYAN:CF01 |
| Product code | : DIA25 |
| Trade name | : SunLit® Diamond DIA25 PROCESS CYAN |
| Date of issue/ Date of revision Version | : 10 June 2016 : 18 |

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

| Identified uses | | | |
|--|--------|--|--|
| Colorant; Printing ink related material; Printing ink. | | | |
| Uses advised against | Reason | | |
| Not applicable. | | | |

1.3 Details of the supplier of the safety data sheet

| Manufacturer/ Distributor | : SUNCHEMICAL AN DEN HIRTENÄCKERN 15, 63791 KARLSTEIN AM MAIN GERMANY +49 (0) 6188 953-0 |
|---|---|
| | SUN CHEMICAL 3 HIGH VIEW ROAD |
| | SOUTH NORMANTON DERBYSHIRE DE55 2DT UNITED KINGDOM (44) 1773 813704 |
| e-mail address of person responsible for this SDS | : regulatory.affairs@sunchemical.com |
| 1.4 Emergency telephone nur | nber |
| <u>Supplier</u> | |

Telephone number: (44) 870-8200418 (Chemtrec - 24 hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Not classified.

See Section 11 for more detailed information on health effects and symptoms.

Date of issue

: 10 June, 2016

SECTION 2: Hazards identification

| 2.2 Label elements | | |
|--|---|--|
| Signal word | : | No signal word. |
| Hazard statements | : | No known significant effects or critical hazards. |
| Precautionary statements | | |
| Prevention | : | Not applicable. |
| Response | : | Not applicable. |
| Storage | : | Not applicable. |
| Disposal | : | Not applicable. |
| Supplemental label elements | : | Contains 2-tert-butylhydroquinone. May produce an allergic reaction. Safety data sheet available on request. |
| 2.3 Other hazards | | |
| Other hazards which do not result in classification | : | None known. |

SECTION 3: Composition/information on ingredients

| | | | Classification | |
|--------------------------|--|------------|---|------|
| Product/ingredient name | Identifiers | % | Regulation (EC) No. 1272/2008 [CLP] | Туре |
| 2-tert-butylhydroquinone | REACH #: 01-2119947988-11 EC: 217-752-2 CAS: 1948-33-0 | 0.25 < 1.0 | Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) | [1] |
| | | | See Section 16 for the full text of the H statements declared above. | |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Туре

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

| General | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice. |
|----------------------------|---|
| Eye contact | : Check for and remove any contact lenses. Immediately flush eyes with room temperature water for at least 15 minutes, keeping eyelids open. In case of accidental eye contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of the eyes. |
| Inhalation | : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |
| Skin contact | Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. |
| Ingestion | If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting. |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. |

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in nonallergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

4.3 Indication of any immediate medical attention and special treatment needed

| Notes to medical doctor | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
|-------------------------|--|
| Specific treatments | : No specific treatment. |

SECTION 5: Firefighting measures

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|---|---|--|--------------------|
| Special protective actions for fire-fighters | : | Cool closed containers exposed to fire with water. Do not release r drains or watercourses. | unoff from fire to |
| 5.3 Advice for firefighters | | | |
| 5.2 Special hazards arising fr Hazards from the substance or mixture Hazardous thermal decomposition products | : | The substance or mixture Fire will produce dense black smoke. Exposure to decomposition p cause a health hazard. Decomposition products may include the following materials: carbo carbon dioxide, smoke, oxides of nitrogen. | |
| Unsuitable extinguishing media | : | Do not use water jet. | |
| 5.1 Extinguishing media Suitable extinguishing media | : | Use dry chemical, CO ₂ , water spray (fog) or foam. | |

SECTION 5: Firefighting measures

Special protective equipment for fire-fighters

: Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

| 6.1 Personal precautions, pro | 6.1 Personal precautions, protective equipment and emergency procedures | | | |
|---|---|----------------|--|--|
| For non-emergency personnel | void breathing vapor or mist. Refer to protective measures listed in | sections 7 and | | |
| For emergency responders | specialized clothing is required to deal with the spillage, take note c formation in Section 8 on suitable and unsuitable materials. See all formation in "For non-emergency personnel". | | | |
| 6.2 Environmental precautions | o not allow to enter drains or watercourses. If the product contamination of sewers, inform the appropriate authorities in accordance with equilations. | | | |
| 6.3 Methods and materials for containment and cleaning up | ontain and collect spillage with non-combustible, absorbent materia arth, vermiculite or diatomaceous earth and place in container for di ccording to local regulations (see Section 13). Preferably clean with void using solvents. | isposal | | |
| 6.4 Reference to other sections | ee Section 1 for emergency contact information. ee Section 8 for information on appropriate personal protective equi ee Section 13 for additional waste treatment information. | ipment. | | |

SECTION 7: Handling and storage

| 7.1 Precautions for safe handling | Keep container tightly closed. Avoid contact with skin and eyes. Avoid inhalation of vapor, spray or mist. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. |
|---|---|
| 7.2 Conditions for safe | : Store between the following temperatures: 5 - 35 °C |
| storage, including any incompatibilities | Store in accordance with local regulations. Notes on joint storage |
| | Keep away from: oxidizing agents, strong alkalis, strong acids. Additional information on storage conditions |
| | Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away |
| | from heat and direct sunlight. Keep container tightly closed. |
| | No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. |
| | Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. |

7.3 Specific end use(s)

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|---------------|-----------------|------------|
|---------------|-----------------|------------|

SECTION 7: Handling and storage

Recommendations Industrial sector specific solutions

- : Not available.
- Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ ingredient name | Туре | Exposure | Value | Population | Effects |
|-----------------------------|------|----------|-------|------------|---------|
| No DELs available. | | | | | |

PNECs

| Product/ingredient name | Туре | Compartment Detail | Value | Method Detail |
|-------------------------|------|--------------------|-------|---------------|
| No PECs available. | | | | |

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|--|---|---|
| Body protection | : Personnel should wear antistatic clothing made of natural fibers or of high- temperature-resistant synthetic fibers. | |
| Gloves | : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. | |
| Hand protection | : Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. | |
| Eye/face protection Skin protection | : Use safety eyewear designed to protect against splash of liquids. | |
| Hygiene measures | : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. | |
| Individual protection measured | <u>sures</u> | |
| 8.2 Exposure controls Appropriate engineering controls | : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn. | 3 |
| | | |

SECTION 8: Exposure controls/personal protection

| Respiratory protection | : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. |
|------------------------------------|--|
| Environmental exposure controls | : Do not allow to enter drains or watercourses. |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties **Physical state** : Liquid. [Paste.] Color : Blue. Odor : Characteristic. **Odor threshold** : Not applicable. Melting point/freezing point : Not applicable. Flash point : >150°C voc : Not applicable. pН : Not tested **Boiling point** : Lowest known value: 288°C (550°F) **Evaporation rate** Highest known value: <1 (Soybean oil) Weighted average: 0.9compared with butyl acetate Upper/lower flammability or : Not tested explosive limits Vapor pressure : Not tested Vapor density : Not tested **Relative density** : Not tested Solubility(ies) : Not tested Partition coefficient: n-octanol/ : Not applicable. water Auto-ignition temperature : Not applicable. **Decomposition temperature** : Not applicable. Viscosity : Not tested **Explosive properties** : Not applicable.

: Not applicable.

9.2 Other information

Oxidizing properties

No additional information.

| SECTION 10: Stabil | ity and reactivity | |
|--|---|--------------|
| 10.1 Reactivity | : No specific test data related to reactivity available for this product or its | ingredients. |
| 10.2 Chemical stability | : Stable under recommended storage and handling conditions (see Sec | tion 7). |
| 10.3 Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will i | not occur. |
| 10.4 Conditions to avoid | : When exposed to high temperatures may produce hazardous decomp products. | osition |
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SECTION 10: Stability and reactivity

| 10.5 Incompatible materials | : | Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids. |
|--|---|--|
| 10.6 Hazardous decomposition products | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

SECTION 11: Toxicological information

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

11.1 Information on toxicological effects

| Acute toxicity | | | | |
|---------------------------------|----------------------------------|-----------------|-----------|----------|
| Product/ingredient name | Result | Species | Dose | Exposure |
| 2-tert-butylhydroquinone | LD50 Oral | Rat | 700 mg/kg | - |
| Irritation/Corrosion | | | | |
| Not determined - Classification | according to Regulation (EC) No | . 1272/2008 [CL | P/GHS] | |
| <u>Sensitization</u> | | | | |
| Not determined - Classification | according to Regulation (EC) No | . 1272/2008 [CL | P/GHS] | |
| <u>Mutagenicity</u> | | | | |
| Not applicable. | | | | |
| Carcinogenicity | | | | |
| Not applicable. | | | | |
| Reproductive toxicity | | | | |
| Not determined - Classification | according to Regulation (EC) No. | 1272/2008 [CLI | P/GHS] | |
| <u>Teratogenicity</u> | | | | |
| Not applicable. | | | | |
| Specific target organ toxicity | <u>(single exposure)</u> | | | |
| Not determined - Classification | according to Regulation (EC) No | . 1272/2008 [CL | .P/GHS] | |
| Specific target organ toxicity | (repeated exposure) | | | |
| Not determined - Classification | according to Regulation (EC) No | . 1272/2008 [CL | P/GHS] | |
| Aspiration hazard | | | | |

Not determined - Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

SECTION 12: Ecological information

There are no data available on the mixture itself. Do not allow to enter drains or watercourses.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

12.1 Toxicity

Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

| 12.4 Mobility in soil | |
|--|------------------|
| Soil/water partition coefficient (K _{oc}) | : Not available. |
| Mobility | : Not available. |
| 12.5 Results of PBT and | vPvB assessment |

| PBT | : Not applicable. |
|------|-------------------|
| vPvB | : Not applicable. |
| | |

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

Do not allow to enter drains or watercourses.

Dispose of according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

For further information, contact your local waste authority.

13.1 Waste treatment methods

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|------------------------------------|----------------|----------------|----------------|----------------|
| 14.1 UN number | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.3 Transport hazard class(es) | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.4 Packing group | - | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. | No. |
| Additional information | - | - | - | - |

14.6 Special Transport within user's premises: always transport in closed containers that are upright and precautions for secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk : Not available. according to Annex II of MARPOL and the IBC Code

user

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

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|---|---|------------|
| 15.2 Chemical Safety Assessment | This product contains substances for which Chemical Safety Assessments to be received. | are still |
| <u>Other EU regulations</u> Industrial use | The information contained in this safety data sheet does not constitute the own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulat to the use of this product at work. | / |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : Not applicable. | |

SECTION 15: Regulatory information

SECTION 16: Other information

CEPE code

✓ Indicates information that has changed from previously issued version.

: 8

| PNEC = Predicted No Effect Concentration RRN = REACH Registration Number |
|---|
|---|

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | | Justification |
|---|---|---|
| Not classified. | | |
| Full text of abbreviated H statements | F302 Harmful if swallo H312 Harmful in conta H315 Causes skin irrit H317 May cause an a H319 Causes serious H400 Very toxic to aqu | act with skin. ation. Ilergic skin reaction. eye irritation. |
| Full text of classifications [CLP/GHS] | Cute Tox. 4, H302 Acute Tox. 4, H312 Aquatic Acute 1, H400 Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 | ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 AQUATIC HAZARD (ACUTE) - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 |
| Full text of abbreviated R phrases | R22- Harmful if swallowed. R36/38- Irritating to eyes and skin. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | |
| Full text of classifications [DSD/DPD] | : | |
| Date of printing | : 15 June 2016 | |
| Date of previous issue | : 7 June 2016 | |
| Notice to reader | | |

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

Annex