Section 1. **PRODUCT AND COMPANY IDENTIFICATION**

1.1 **Product identifier**

- **Product Name:** Cellstain® DAPI
- **Product Code:** D212
- **CAS Number:** 28718-90-3
- **EC Number:** 249-186-7

1.2 **Details of the supplier of the safety data sheet**

- **Company:** Dojindo Laboratories
- **Address:** Tabaru 2025-5 Mashiki-machi, Kamimashiki-gun, Kumamoto 861-2202, Japan
- **Telephone:** +81-96-286-1515
- **Fax:** +81-96-286-1525
- **Emergency phone number:** +81-96-286-1515

1.3 **Product use**

For research use only.

Section 2. **HAZARDS IDENTIFICATION**

2.1 **Classification of the substance or mixture**

- Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
  - Skin corrosion/irritation, Category 2
  - Skin sensitisation, Category 1, 1A, 1B
  - Specific target organ toxicity – single exposure, Category 3

2.2 **Label elements**

Labeling according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Pictogram:

- **Signal word:** Warning

- **Hazard statement(s):**
  - H315: Causes skin irritation.
  - H317: May cause an allergic skin reaction.
  - H335: May cause respiratory irritation.

- **Precautionary statement(s):**
  - P261: Avoid breathing dust/fume/gas/mist/ vapours/spray.
  - P264: Wash hands/face/forearms/clothing thoroughly after handling.
  - P271: Use only outdoors or in a well-ventilated area.
  - P272: Contaminated work clothing should not be allowed out of the workplace.
  - P280: Wear protective gloves/protective clothing/eye protection/ face protection.
  - P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
  - P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  - P312: Call a POISON CENTER or doctor/physician if you feel unwell.
Other hazards
None known.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Product Name: Cellstain® - DAPI
Synonyms: 4',6-Diamidino-2-phenylindole, dihydrochloride
Concentration: \( \leq 100 \% \)
Formula: \( \text{C}_{16}\text{H}_{17}\text{Cl}_{2}\text{N}_{5} \)
Molecular Weight: 350.25

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures
If inhaled: If breathed in, move into fresh air. Seek medical advice if discomfort occurs. If not breathing, give artificial respiration. Call a physician.
If swallowed: Do not induce vomiting. Wash out mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.
In case of skin contact: Wash off with plenty of water. Remove contaminated clothing and launder before reuse.
In case of eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation occurs.

4.2 Most important symptoms and effects, both acute and delayed
No information available.

4.3 Indication of any immediate medical attention and special treatment needed
No information available.

Section 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Use extinguishing media appropriate for the surrounding fire.

5.2 Special hazards arising from the substance or mixture
May emit toxic fumes under fire conditions.

5.3 Special protective equipment for firefighters
Wear self-contained breathing apparatus and full protective clothing if necessary.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Avoid formation of dust. Avoid breathing dust, vapors, mist or gas. Avoid contact with skin and clothing.

6.2 Environmental precautions
Prevent further leakage. Prevent contamination of drains with product.

6.3 Methods and materials for containment and cleaning up
Pick up and collect product in suitable container for disposal.

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust. Avoid breathing dust, vapors, mist or gas. Wear appropriate protective personal equipment. Use only with adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities
Keep tightly closed. Protect from light. Store in a deep freeze at -20°C, dark and dry place.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION
8.1 Control parameters
Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures
Ensure adequate ventilation, especially in confined areas.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Wash hands, forearms and face after handing.

Personal protective equipment

Eye/face protection: Wear safety glasses with side-shields conforming to European Standard EN166.


Skin and body protection: Wear laboratory coat or impervious clothing. Choose appropriate body protection according to the amount and concentration of the substance at the work place.

Respiratory protection: Wear suitable respiratory equipment in case of inadequate ventilation.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

a) Appearance: Yellow to yellow greenish brown powder or solid

b) Odor: Odorless

c) Odor Threshold: No data available

d) pH: No data available

e) Melting point/freezing point: No data available

f) Initial boiling point and boiling range: No data available

g) Flash point: No data available

h) Evaporation rate: No data available

i) Flammability (solid, gas): No data available

j) Upper / lower flammability or explosive limits: No data available

k) Vapor pressure: No data available

l) Vapor density: No data available

m) Relative density: No data available

n) Solubility(ies): Solubility in water (1 mg / ml)
o) Partition coefficient: n-octanol / water: No data available

p) Auto-ignition temperature: No data available

q) Decomposition temperature: No data available

r) Viscosity: No data available

s) Explosive properties: No data available

t) Oxidizing properties: No data available

Section 10. STABILITY AND REACTIVITY

Stability and reactivity

Reactivity: Stable

Chemical stability: Stable at a deep freeze at -20°C, dark and dry place.

Possibility of hazardous reactions: No data available

Conditions to avoid: Heat, sunlight, high temperature

Incompatible materials: Strong oxidizing agents, strong acids and bases

Hazardous decomposition products: When decomposed, it may emit toxic fumes of carbon monoxide, carbon dioxide and nitrogen oxides.

Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

a) Acute toxicity: No data available

b) Skin corrosion / irritation: No data available

c) Serious eye damage/eye irritation: No data available

d) Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as a possible, probable or confirmed human carcinogen by IARC.

e) Reproductive toxicity: No data available

f) STOT - SE: No data available

g) STOT - RE: No data available

h) Aspiration hazard: No data available

11.2 Potential health effects

Wear laboratory coat or impervious clothing. Choose appropriate body protection according to the amount and concentration of the substance at the work place.

When decomposed, it may emit toxic fumes of carbon monoxide, carbon dioxide and nitrogen oxides.
Ingestion: May be harmful if swallowed.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes serious eye irritation.

11.3 Additional Information
No additional information is available

Section 12. ECOLOGICAL INFORMATION
12.1 Ecotoxicity
No data available
12.2 Persistence and degradability
No data available
12.3 Bioaccumulative potential
No data available
12.4 Mobility in soil
No data available
12.5 Results of PBT and vPvB assessment
No data available

Section 13. DISPOSAL CONSIDERATIONS
Waste treatment methods
Product
Contact a licensed professional waste disposal service to dispose of this material. Dispose of in accordance with local regulations.
Contaminated packaging
Dispose of as unused product. Do not reuse empty containers.

Section 14. TRANSPORT INFORMATION
14.1 UN number
ADR/RID: - IMDG: - IATA: -
14.2 UN proper shipping name
ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -
14.4 Packaging group
ADR/RID: - IMDG: - IATA: -
14.5 Environmental hazards
ADR/RID: No IMDG: No IATA: No

Section 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture
No information available
15.2 Chemical Safety Assessment
No information available

Section 16. OTHER INFORMATION
Key to abbreviations and acronyms
STOT-SE: Specific Target Organ Toxicity - Single Exposure
STOT-RE: Specific Target Organ Toxicity - Repeated Exposure
PBT: Persistent Bioaccumulative and Toxic
vPvB: very Persistent very Bioaccumulative and toxic
ADR: European Agreement concerning the international carriage of Dangerous goods by Road
CAS: Chemical Abstracts Service
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
REACH: Regulation, Evaluation, Authorization and restriction of Chemicals
RID: Regulations concerning the International Transport of Dangerous Goods by Rail
This product is a chemical substance and is intended to be used by persons having chemical knowledge and skill at their own discretion and risk. This SDS was prepared with our best knowledge based on the information obtained. However, it does not provide any warranty on the data and the assessment of hazards and toxicity information be covered. For use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, region and country where the product be used.

In case you use the information on SDS for important decision, we strongly recommend you to confirm the source of information and the data with your own investigation. Please be noted that the physicochemical data and contents indicated in this SDS are not guaranteed values, only a guide.

The cautions stated are for normal handling only. Additional care may be required for any special handling. The data and/or information used on this SDS may be updated by new knowledge and/or amendments of the conventional theory. Therefore, please check the most updated version of SDS which is available at www.dojindo.com.