

# Material Safety Data Sheet

Prepared on May-24-2002

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|---|--|--|-------|-----------|----------|
| 1. Product and company identification     | Product name   | Durazinklite Black   |       |           |          |
|   | Supplier   | Company identification Name : Nippon Steel Corporation<br>Address : 6-3, Otemachi 2-chome, Chiyoda-ku, Tokyo<br>Division in charge : Export Div.<br>Telephone number : 03-3275-7714<br>Facsimile number : 03-3275-5635<br>Emergency address and telephone number : Same as above |       |           |          |
| 2. Composition/information on ingredients | Substance or preparation   | Preparation  |       |           |          |
|   | Main ingredients   | Ingredient   | Conc. | CAS No.   | ICSC No. |
|   |  | Iron [Fe]  | 94%   | 7439-89-6 | -        |
|   |  | Zinc [Zn]  | 5%    | 7440-66-6 | -        |
|   |  | Nickel [Ni]  | 1%    | 7440-02-0 | 0062     |
|   |  |  |       |           |          |
|   |  |  |       |           |          |
| 3. Hazards identification                 | At present, we have no effective information on hazards identification under general conditions. However, the fumes resulting from welding, autogenous cutting, etc. and the fine particles resulting from grinding, etc. may irritate the respiratory organs, the mucous membrane of the eye, etc. Burns may result from arcing. Moreover, cutting chips or the like may be injurious to the skin.  |  |       |           |          |
| 4. First-aid measures                     | After receiving the first-aid measure required, consult a physician if necessary. Examples of first-aid measures are given below. <ul style="list-style-type: none"> <li>• If respiration becomes difficult due to fumes or the like, apply a respiratory aid and consult a physician immediately.</li> <li>• When a burn is caused by arcing or the like, cool the affected part and receive medical treatment if necessary.</li> <li>• If the mucous membrane of the eye or the like is irritated by fumes, fine particles, etc., wash the affected part with water and consult a physician immediately.</li> <li>• When the skin is injured by cutting chips or the like, keep the wound clean and receive medical treatment if necessary.</li> </ul> |  |       |           |          |
| 5. Fire-fighting measures                 | Fine particles may be combustible.   |  |       |           |          |
| 6. Accidental release measures            | As the product is a solid, it is not released under general conditions.  |  |       |           |          |
| 7. Handling and storage                   | Avoid unnecessary wetting with water, contact with acids and high-temperature and high-humidity environments. In the case of heavy product, take precautions to prevent the possibility of falling.  |  |       |           |          |

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| 8. Exposure controls/personal protection | At present, we have no effective information on exposure controls and personal protection under general conditions. When performing welding, autogenous cutting, grinding, cutting, etc., wear masks, goggles, gloves, work clothes, etc. for prevention of fume inhalation and irritation to the mucous membrane and for protection from arcs and cutting chips.   |
| 9. Physical and chemical properties      | Physical state A silver-white solid under general conditions  |
|  | Physical properties Fusion point : 1,455 ~ 1,535°C<br>Density : Approx. 7.8 g/cm <sup>3</sup>   |
| 10. Stability and reactivity             | The product is stable with low reactivity under general conditions. However, rust may appear if the product comes into contact with water or an oxidizing substance. This rusting may be accompanied with a deficiency of oxygen or the generation of hydrogen.   |
| 11. Toxicological information            | At present, we have no effective epidemiological information on the toxicological (health) effects of this steel product. For some of alloying elements, however, toxicological effects may be pointed out, for example, in cases where the concentration of respective element exceeds a certain level (e.g., allowable concentration) during the operations described in Section 8. The toxicological information is obtained from, for example, the ICSC (supervised by the Environmental Health Bureau, Ministry of Health and Welfare), etc. |
| 12. Ecological information               | At present, we have no effective ecological information. For some of alloying elements, however, environmental effects may be pointed out. The ecological information is obtained, for example, from the ICSC (supervised by the Environmental Health Bureau, Ministry of Health and Welfare). etc.   |
| 13. Disposal considerations              | Basically, disposal is entrusted to legally approved industrial waste management contractors. If there is any substance adhering to the waste to be disposed of, the contractor is selected, paying attention to the adhering substance.  |
| 14. Transport information                | In the case of heavy product, exercise care for prevention of load shifting. It is desirable to cover the product with tarpaulin or the like to prevent infiltration of rain water, etc.  |
| 15. Regulatory information               | No specific information   |
| 16. Other information                    | For inquiries, refer to Automotive Export Div., Nippon Steel Corporation. Telephone No.: 03-3275-7714   |

This data sheet has been drawn up in accordance with ISO 11014-1 "Safety Data Sheet for Chemical Products", Part 1 "Content and Order of Sections" (hereinafter referred to as "ISO"). The definitions of terms conform to ISO.

In this data sheet, the information which is available at Nippon Steel at the time of sheet preparation is furnished to the users as the "reference information" for securing safe handling of the product. Referring to this data sheet, the users should take appropriate safety measures on their own responsibility depending on the actual state of handling. This data sheet is not intended for assuring the safety of the product. There is a possibility of hazards which are not described in this data sheet and for which our company does not have any specific information.