



Printing date 20/05/2015

Reviewed on 01/01/2017

Safety Data Sheet

1 IDENTIFICATION

Product identifier

Trade name: Chemical Sharpener for Tungsten Points

Product size: Variable

Other means of identification: Sodium Nitrite

SDS Number: 002

Recommended use and restriction on use

Recommended use: Chemically sharpens tungsten electrodes

Restrictions on use: No further relevant information available.

Manufacturer/Importer/Supplier/Distributor information

Importer:

Harris Products Group

14 Queensland Rd

Darra, QLD, Australia 4076

(07) 33753670

Safety Data Sheet Questions: sales@hgea.com.au

Website: <http://www.harrisproductsgroup.com.au>

Poisons Information Centre/Helpline (24 hours) Australia 13 11 26

2 HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW

WHITE TO SLIGHTLY YELLOW CRYSTALLINE SOLID. TOXIC IF SWALLOWED OR DUST IS INHALED. OXIDIZER: MAY IGNITE ORGANIC MATERIALS AND REACT WITH OTHER MATERIALS. CAN DECOMPOSE IF MIXED WITH ACIDS OR EXPOSED TO FIRE CONDITIONS, RELEASING TOXIC NITROGEN OXIDES.

GHS classification of the substance/mixture.

Classified according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

The product is classified as hazardous according to the Globally Harmonized System (GHS).

Potential Health Affects

SKIN: May cause skin irritation.

EYES: May strongly irritate or burn the eyes. Fragments or crystals may cause moderate to severe eye irritation. May cause more severe damage unless promptly removed by flushing.

INHALATION: Product mists may cause irritation to the respiratory tract. Inhaled dusts may irritate the upper respiratory tract. Inhalation of high concentrations of dusts or vapour from molten material may cause severe effects similar to those shown above for ingestion.

INGESTION: Ingestion of large amounts may cause nausea, vomiting, cyanosis, convulsions, lowered blood pressure, burns to mouth and stomach. Patient may lapse into a coma. Trivial amounts ingested incidental to normal handling will have little or minor effects although superficial burns may be inflicted on the lips and mouth.

DELAYED EFFECTS: None known. If sodium nitrite is used with amines found in certain cutting fluids, potentially carcinogenic nitrosamine compounds may be formed.



Contact with combustible material may cause fire, R 25 Toxic if swallowed, R 50 Very toxic to aquatic organisms.

S 2 Keep out of reach of children, R 45 In case of accident or if you feel unwell, seek medical advice immediately (show label or this SDS if possible), S 61 Avoid release to the environment. Refer to special instructions/Safety Data Sheets.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions

Dangerous components:		
CAS	Name	Proportion
7632-00-0	Sodium Nitrite	>98%

Additional information:

For the listed ingredient(s), the identity and exact percentage(s) are being withheld as a trade secret.

Composition comments:

The term "Hazardous Ingredients" should be interpreted as a term defined in Hazard Communication standards and does not necessarily imply the existence of a hazard. The product may contain additional nonhazardous ingredients or may form additional compounds under the condition of use. Refer to Sections 2 and 8 for more information.

4 First-aid measures

Description of first aid measures

EYE CONTACT: Immediately flush eyes with water for at least 15 minutes. Get medical attention if irritation persists.

SKIN CONTACT: Flush with plenty of water, removing contaminated clothing. If irritation develops, get medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get prompt medical attention.

INGESTION: Do not induce vomiting. Immediately give large quantities of water. Get medical attention immediately.

Notes to Physician (for symptoms of over-exposure to this product see above)

Sodium nitrite forms methemoglobin in the blood stream. Treat accordingly.

Possible symptoms of Chronic Health Effects

Normal routes of exposure are by skin contact, inhalation of dusts or fumes and eye contact. See above for typical symptoms.

Possible aggravated pre-existing conditions

None reported.

5 Fire-fighting measures

Flammable Properties

FLASH POINT: Not Flammable

FLASH POINT METHOD: Not Applicable

AUTOIGNITION TEMPERATURE: Not Applicable

UPPER FLAME LIMIT (VOLUME % IN AIR): Not Applicable

LOWER FLAME LIMIT (VOLUME % IN AIR): Not Applicable

FLAME PROPAGATION RATE (SOLIDS): Not Applicable

OSHA FLAMMABILITY CLASS: Not Applicable

SUITABLE EXTINGUISHING MEDIA: Use flooding amounts of water or other agents.

UNSUITABLE EXTINGUISHING MEDIA: Do not use dry chemicals containing ammonium phosphate.

Explosion Limits

HAZARDOUS COMBUSTION PRODUCTS: NO_x

IMPACT SENSITIVITY: No information available

SENSITIVITY TO STATIC DISCHARGE: No information available

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Material does not burn but is an oxidizing agent and will support combustion of other materials. Product decomposes above 608°F releasing toxic nitrogen oxides.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: Wear self-contained breathing apparatus and full protective equipment.

Additional information

Read and understand the Work Safe Australia Code of Practice on Welding Processes and “Standard for Fire Prevention During Welding, Cutting and Other Hot Work” before using this product. Section 274 of the Work Health and Safety Act (the WHS Act.)

6 Accidental release measures

IN CASE OF SPILL OR OTHER RELEASE: Remove sources of ignition. Ventilate area. Use non-sparking tools and equipment. Sweep or shovel spilled material into containers. Dispose of material according to local authorities. Do not allow product or residues to enter waterways and/or any source of drinking water.

Methods and material for containment and cleaning up:

Clean up spills immediately, observing precautions in the personal protective equipment in Section 8. Prevent product from entering any drains, sewers or water sources.

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

Dispose contaminated material as waste according to item 13.

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.

7 Handling and storage

HANDLING: Avoid contact with skin and eyes. Do not breathe product dusts. Avoid contact with incompatible, combustible, organic or readily oxidisable materials.

STORAGE: Store in a cool, dry, well-ventilated area. Keep storage temperature between 4 and 35 °C. Keep containers tightly closed. Do not store on wooden floors. Isolate from combustible materials. Empty containers may contain product residues; observe all warnings and precautions listed for the product.

Read and understand the manufacturer's instruction and the precautionary label on the product. Refer to Lincoln Safety Publications at www.lincolnelectric.com/safety. See the Australian Standard - AS 1674.1 – 1997 – Reconfirmed 2016. Safety in Welding and Allied Processes Australia.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Exposure Guidelines:

Refer to the Safe Environments risk management document – Welding Fume - <http://www.safeenvironments.com.au/welding-fume/> The exposure standard refers to the publication by Work Safe Australia “Workplace Exposure Standard for Airborne Contaminants” with the Date of Effect being 22 December 2011. Work Safe Australia note that “exposure standards do not represent a fine dividing line between a healthy and unhealthy work environment. Natural biological variation and the range of individual susceptibilities mean that a small number of people might experience adverse health effects below the exposure standard.

The American Governmental Congress of Industrial Hygienists (ACGIH) however recommends a Threshold Limit Value (TLV) Time Weighted Average (TWA) of 5 mg/m³ for welding fume, on the assumption that there are no highly toxic constituents. However, in Australia, there is no specific exposure standard for welding fume. This is due to the fume being a combination of the metals and filler material being molten together along with cleaning and fluxing agents present. Each metal or material within the process of welding will generally have its own exposure standard.

7632-00-0	Sodium Nitrite	TWA 10 mg/m ³
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Refer to Worksafe Australia for standards:

http://www.safeworkaustralia.gov.au/sites/SWA/about/Publications/Documents/639/Workplace_Exposure_Standards_for_Airborne_Contaminants.pdf

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Determine the composition and quantity of fumes and gases to which workers are exposed by taking an air sample from inside the welder's helmet if worn or in the worker's breathing zone. Improve ventilation if exposures are not below limits. Personal air monitoring is generally undertaken over a representative period of time undertaken to Australian Standard AS 3640-2009 Workplace atmospheres – Method for sampling and gravimetric determination of inhalable dust using IOM sampling heads with flow rate of 2.0 L/min.

Keep away from foodstuffs, beverages and feed.

Engineering controls:

Ventilation

Use enough ventilation, local exhaust at the the flame or heat source, or both to keep the fumes and gases from the worker's breathing zone and the general area. Train the operator to keep his head out of the fumes. Keep exposure as low as possible.

Breathing equipment:

Keep your head out of fumes. Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and the general area. An approved respirator should be used unless exposure assessments are below applicable exposure limits.

Protection of hands:

Thermally-protective gloves.

Wear rubber or PVA gloves to AS 2161. Use thermal gauntlets if welding. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Eye protection:

Wear chemical safety goggles. If welding use a welder's helmet. Do not wear contact lenses

Body protection: Protective work clothing**9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Crystals
Colour:	White to slightly yellow
Odour:	Odourless
Odour Threshold:	Not Determined
pH-value:	~9.0 (for aqueous solution)

Change in condition

Melting point/Melting range:	271 ⁰ F
Boiling point/Boiling range:	Decomposes above 320 °C

Flash point:	Not Flammable
Flammability (solid, gaseous):	Not Determined
Auto-ignition temperature:	Not Applicable
Decomposition temperature:	Not Determined
Auto igniting:	Not Applicable
Danger of explosion:	No Information Available

Explosion Limits:

Lower:	Not Determined
Upper:	Not Determined

Vapour Pressure:	Not Applicable
Density:	Not Applicable
Relative Density:	Not Applicable

Vapour Density:	Not Applicable
Evaporation Rate:	Not Determined
Solubility in/Miscibility with water:	1.5 parts in cold water
Partition coefficient (n-octanol/water):	Not information applicable
Viscosity:	Not information applicable
Dynamic:	Not applicable
Kinematic:	Not applicable
Other Information:	No further relevant information available

10 Stability and reactivity

CHEMICAL STABILITY: Normally stable.

CONDITIONS TO AVOID: Material slowly oxidizes to sodium nitrite when exposed to air. Avoid heat, flame, ignition sources, shock, friction and incompatibilities.

INCOMPATIBLE PRODUCTS: Hazardous reactions can occur with acids, ammonium compounds, reducing agents (particularly cyanides, thiocyanates and thiosulfates). May ignite organic compounds and other combustible materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen (toxic and irritating).

POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.

Hazardous decomposition products:

Brazing fumes and gases cannot be classified simply. The composition and products: quantity of both are dependent upon the metal being joined, the process, procedure and filler metals and flux used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being joined (such as paint, plating, or galvanizing), the number of operators and the volume of the worker area, the quality and amount of ventilation, the position of the operator's head with respect to the fume and fumes from chemical fluxes used in some brazing operations. When the wire or rod is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section 3. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in Section 3, plus those from the base metal and coating, etc., as noted above.

11 Toxicological information

Oral Human LD₅₀ 14 mg/m³/70 minutes. Inhalation Rat LC₅₀ 5.5

IRRITATION: No information available

CORROSIVITY: No information available

SENSITIZATION: No information available

Chronic Toxicity

CARCINOGENICITY: There are no known carcinogenic chemicals in this product.

MUTAGENIC EFFECTS: No information available

REPRODUCTIVE EFFECTS: No information available

DEVELOPMENTAL EFFECTS: No information available

TERATOGENICITY: Multiple reproductive tests indicate that sodium nitrite is not teratogenic.

TARGET ORGAN EFFECTS: No information available

OTHER ADVERSE EFFECTS: Fetal toxicity has been demonstrated in pregnant animals fed toxic doses of sodium nitrite. This is due to the formation of methemoglobin.

ENDOCRINE DISRUPTOR INFORMATION: No information available

12 Ecological information

ECOTOXICITY

Very toxic to aquatic organisms. Avoid release to the environment.

PERSISTENCE AND DEGRADABILITY: No information available

BIOACCUMULATION: No information available

MOBILITY IN ENVIRONMENTAL MEDIA: No information available

Other adverse effects No further relevant information available.

13 Disposal considerations

WASTE DISPOSAL METHODS: Dispose of waste in accordance with all state and local regulations.

CONTAMINATED PACKAGING: Empty containers should be taken for local recycling, recovery or waste disposal.

14 Transport Information



UN-Number DOT, ADR, ADN, IMDG, IATA	UN1500 Class 5. 1 Hazard class 5.1
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	UN1498
Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class	Not Regulated

Packing group DOT, ADR, IMDG, IATA	III
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	Not applicable.

15 Regulatory information

Product Name: Chemical Sharpener for Tungsten Points

Label in accordance with the ADG Code with the phrase "UN1500 Sodium Nitrite" and the class labels for Class 5.1 and 6.1 with the numeral obliterated or removed (to indicate 6.1 as the secondary hazard). Labeling under the SUSMP and the "National Code of Practice for the Labeling of Workplace Substance" [ASCC: 2012 (1994)] does not apply to this product as is sold and marked as a DG substance as above.

Refer to the Australian Inventory of Chemical Substances – AICS at <https://www.nicnas.gov.au/chemicals-on-AICS#main>

Poison schedule: Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). <https://www.legislation.gov.au/Details/F2016L01638>

Classifications: Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

16 Other information

References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice

Standard for the Uniform Scheduling of Medicines and Poisons

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Modell Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals. Workplace exposure standards for airborne contaminants, Safe work, Australia

American Conference of Industrial Hygienists (ACGIH)

Globally Harmonised System of classification and labelling of chemicals.

WELDING (1): Due to the diversity of welding techniques, processes, materials used, nature of the surface being welded and the presence of contaminants, the fumes & gases associated with welding will vary in composition and quantity. When assessing a welding process, the toxic fumes generated may not only be associated with the parent metal, filler wire or electrode. The welding/cutting arc may generate nitrogen oxides, carbon monoxide & other gases, whilst UV radiation emitted from some arcs generates ozone. Ozone may irritate mucous membranes and cause pulmonary oedema & haemorrhage. Shielding gases (e.g. carbon dioxide and inert gases i.e. argon and helium) in high concentrations, in confined spaces, may reduce oxygen in the atmosphere to dangerous levels, resulting in possible asphyxiation.

WELDING (2): In addition to complying with individual exposure standards for specific contaminants, where current manual welding processes are used, the fume concentration inside the welder's helmet should not exceed 5 mg/m³ (unless otherwise classified) when collected in accordance with Australian Standard AS 3853.1: Fume from welding and allied processes - Guide to methods for the sampling and analysis of particulate matter and AS 3853.2: Fume from welding and allied processes - Guide to methods for the sampling and analysis of gases. Airway irritation and metal fume fever are the most common acute effects from welding fumes. Reported to cause reduced sperm quality in welders.

WELDING (3): Other gases and fumes associated with welding processes include: Inert shielding gases (e.g. argon, carbon dioxide, helium) which may reduce the atmospheric oxygen content in poorly ventilated areas. UV-radiation and Infra-Red radiation may decompose chlorinated degreasing agents to form highly toxic and irritating phosgene gas. This may occur if a metal has been degreased but inadequately dried or when vapours from a nearby degreasing bath enter the welding zone.

WELDING (4): Welding fumes may contain a wide variety of chemical contaminants, including oxides and salts of metals and other compounds which may be generated from electrodes, filler wire, flux materials and from the welded material (e.g. painted surfaces). Welding stainless-steel and its alloys generates nickel and chromium (VI) compounds. Welding fumes are retained in the lungs. Sparingly soluble compounds may be released slowly from the lungs. Welding fume is classified as possibly carcinogenic to humans (IARC Group 2B).

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Disclaimer:

We urge each end user and recipient of this SDS to study it carefully. If necessary, consult an industrial hygienist or other expert to understand this information and safeguard the environment and protect workers from potential hazards associated with the handling or use of this product. Harris Products Group cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for use, handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

WARNING: PRODUCT COMPONENTS PRESENT HEALTH AND SAFETY HAZARDS. READ AND UNDERSTAND THIS MATERIAL SAFETY DATA SHEET (M.S.DS.). ALSO, FOLLOW YOUR EMPLOYER'S SAFETY PRACTICES.

The information contained herein relates only to the specific product. If the product is combined with other materials, all component properties must be considered. **BE SURE TO CONSULT THE LATEST VERSION OF THE MSDS. MATERIAL SAFETY DATA SHEETS ARE AVAILABLE FROM HARRIS PRODUCTS GROUP** Harris Products Group, HGE PTY LTD, Brisbane | Melbourne | Perth | New Zealand, 14 Queensland Rd, Darra, QLD 4076, Phone: (07) 3375 3670 | Fax: (07) 3375 3620, Email: sales@hgea.com.au, www.harrisproductsgroup.com.au,

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