


**SAFETY DATA SHEET (SDS)**
**Section 1. Identification**

<b>Product identifier</b>	Piperazine 52
<b>Other means of identification</b>	DIN 00236667
<b>Recommended use and restrictions on use</b>	Medicated feed additive in 25 kg drum
<b>Initial supplier identifier</b>	Vétoquinol N.-A. Inc. 2000 Chemin Georges, Lavaltrie, Qué (Canada), J5T 3S5 Tel. (450) 586-2252
<b>Emergency telephone number/restriction on use</b>	Canada – CANUTEC 24 hour number 613-996-6666

**Section 2. Hazard identification**

<b>Classification of hazardous product (name of the category or subcategory of the hazard class)</b>	
Skin irritation (Category 2) Eye irritation (Category 2A) Respiratory sensitization (Category 1) Reproductive toxicity (Category 2) Acute aquatic toxicity (Category 3)	
<b>Information elements (symbols, signal words, hazard statements and precautionary statements of the category/subcategory)</b>	
 <p>Danger          H315 Causes skin irritation.          H319 Causes serious eye irritation.          H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.          H361 Suspected of damaging fertility or the unborn child.          H402 Harmful to aquatic life.          P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands/nails/face thoroughly after handling. P280 Wear gloves/protective clothing/eye protection/face protection. P284 Wear respiratory protection. P302 + P352 IF ON SKIN: Wash with plenty of water. P332 + P313 If skin irritation occurs: Get medical attention. P362 + P364 Take off contaminated clothing and wash it before reuse. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342 + P311 If experiencing respiratory symptoms: Call a doctor. P308 + P313 IF exposed or concerned: Get medical attention. P305 + P351 + P338 IF IN EYES, Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical attention.          P273 Avoid release to the environment. P405 Store locked up. P501 Dispose of contents/container into safe container in accordance with local, regional or national regulations.</p>	
<b>Other hazards known</b>	None

**Section 3. Composition/information on ingredients**

Chemical name (common name/synonyms)	CAS number or other	Concentration (%)
Piperazine dihydrochloride	142-64-3	> 97 %

**Section 4. First-aid measures**

<b>Inhalation</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a doctor.
<b>Ingestion</b>	IF SWALLOWED: Immediately call a doctor. DO NOT INDUCE VOMITING. NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. Have victim drink two glasses of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.
<b>Skin contact</b>	IF ON SKIN: Wash with plenty of water (15-20 minutes). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.
<b>Eye contact</b>	IF IN EYES, Rinse cautiously with water for several minutes (15-20). Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
<b>Most important symptoms and effects (acute or delayed)</b>	Eye and skin irritation. Allergy or asthma symptoms or breathing difficulties.
<b>Indication of immediate medical attention/special treatment</b>	In all cases, call a doctor. Do not forget this document.

**Section 5. Fire-fighting measures**

<b>Specific hazards of the hazardous product (hazardous combustion products)</b>
Carbon oxides and other irritant/toxic gases and fumes.
<b>Suitable and unsuitable extinguishing media</b>
In case of fire: Use carbon dioxide, chemical powder agent and appropriate foam to extinguish surrounding products.
<b>Special protective equipment and precautions for fire-fighters</b>
During a fire, irritating/toxic smoke and fumes may be generated. Do not enter fire area without proper protection. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece. Shield personnel to protect from venting, rupturing or bursting cans. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and cans exposed to heat and flame.

<b>Section 6. Accidental release measures</b>			
<b>Personal precautions, protective equipment and emergency procedures</b>			
Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment (See Section 8).			
<b>Methods and materials for containment and cleaning up</b>			
Ventilate area of release. Stop the leak if it can be done safely. Contain and absorb any spilled liquid concentrate with inert absorbent material, then place material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.			
<b>Section 7. Handling and storage</b>			
<b>Precautions for safe handling</b>			
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear gloves/protective clothing/eye protection/face protection. Before handling, it is very important that engineering controls are operating, and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Inspect containers for leaks before handling. Label containers appropriately. Ensure proper ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Avoid generating high concentrations of dusts, vapours or mists. Keep away from incompatible materials (Section 10). Keep containers closed when not in use. Empty containers are always dangerous. Refer also to Section 8.			
<b>Conditions for safe storage, including any incompatibilities</b>			
Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Store away from incompatible materials (Section 10). Inspect all incoming containers to make sure they are properly labelled and not damaged. Storage area should be clearly identified, clear of obstruction and accessible only to trained personnel. Inspect periodically for damage or leaks.			
<b>Section 8. Exposure controls/Personal protection</b>			
<b>Control parameters (biological limit values or exposure limit values and source of those values)</b>			
Exposure limits: ACGIH – TLV-TWA & PEL-TWA – No value for the ingredients or the product itself.			
<b>Appropriate engineering controls</b>			
Use under well-ventilated conditions. Local exhaust ventilation system is recommended to maintain concentrations of contaminants below exposure limits. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.			
<b>Individual protection measures/personal protective equipment</b>			
Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirators if the exposure limits are unknown. Chemically protective gloves (impervious), and other protective clothing to prevent prolonged or repeated skin contact, must be worn during all handling operations. Wear protective chemical splash goggles to prevent mists from entering the eyes. Wash hands/nails/face thoroughly after handling. Do not eat, drink or smoke when using this product. Practice good personal hygiene after using this material. Remove and wash contaminated work clothing before re-use.			
<b>Section 9. Physical and chemical properties</b>			
<b>Appearance, physical state/colour</b>	Crystalline white powder	<b>Vapour pressure</b>	Not available
<b>Odour</b>	Odourless	<b>Vapour density</b>	Not available
<b>Odour threshold</b>	Not available	<b>Relative density</b>	Not available
<b>pH</b>	Not available	<b>Solubility</b>	Slightly soluble
<b>Melting/freezing point</b>	235-238°C	<b>Partition coefficient - n-octanol/water</b>	Not available
<b>Initial boiling point/range</b>	Not available	<b>Auto-ignition temperature</b>	Not available
<b>Flash point</b>	Not available	<b>Decomposition temperature</b>	Not available
<b>Evaporation rate</b>	Not available	<b>Viscosity</b>	Not available
<b>Flammability (solids and gases)</b>	Not available	<b>VOC</b>	Not available
<b>Upper and lower flammability/explosive limits</b>	Not available	<b>Other</b>	None known
<b>Section 10. Stability and reactivity</b>			
<b>Reactivity</b>			
Does not react under the recommended storage and handling conditions prescribed.			
<b>Chemical stability</b>			
Stable under the recommended storage and handling conditions prescribed.			
<b>Possibility of hazardous reactions</b>			
None known. Non-corrosive in presence of glass.			
<b>Conditions to avoid (static discharge, shock or vibration)</b>			
None known.			
<b>Incompatible materials</b>			
Oxidizing materials; strong acids; etc.			
<b>Hazardous decomposition products</b>			
None known			



<b>Section 11. Toxicological information</b>	
<b>Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)</b>	
Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of damaging fertility or the unborn child.	
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	
Skin irritation, redness, stinging, pain; Eye irritation, redness, tearing. Allergy or asthma symptoms or breathing difficulties if inhaled.	
<b>Delayed and immediate effects (chronic effects from short-term and long-term exposure)</b>	
Skin Sensitization – No data available; Respiratory Sensitization – Possible; Germ Cell Mutagenicity – No data available; Carcinogenicity – No ingredient listed by IARC, ACGIH, NTP or OSHA Reproductive Toxicity – Suspected of damaging fertility or the unborn child; Specific Target Organ Toxicity – Single Exposure – No data available; Specific Target Organ Toxicity – Repeated Exposure – No data available; Aspiration Hazard – No data available; Health Hazards Not Otherwise Classified – No data available.	
<b>Numerical measures of toxicity (ATE; LD<sub>50</sub> &amp; LC<sub>50</sub>)</b>	
CAS 142-64-3 LD <sub>50</sub> Oral - Rat - 4900 mg/kg; LC <sub>50</sub> Inhalation - Rat - 4 h – None; LD <sub>50</sub> Dermal - Rabbit - None ATE not available in this document.	
<b>Section 12. Ecological information</b>	
<b>Ecotoxicity (aquatic and terrestrial information)</b>	
CAS 142-64-3 Toxicity to fish LC50 - Poecilia reticulata (guppy) - > 1,800 mg/l - 96.0 h; Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 21 mg/l - 48 h; Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - > 1,000 mg/l - 72 h	
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulative potential</b>	No bioaccumulation is to be expected.
<b>Mobility in soil</b>	No data available
<b>Other adverse effects</b>	No data available for the product.
<b>Section 13. Disposal considerations</b>	
<b>Information on safe handling for disposal/methods of disposal/contaminated packaging</b>	
Dispose of contents/container into safe container in accordance with local, regional or national regulations.	
<b>Section 14. Transport information</b>	
<b>UN number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations</b>	
NOT REGULATED	
<b>UN number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime)</b>	
NOT REGULATED	
<b>UN number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air)</b>	
NOT REGULATED	
<b>Special precautions (transport/conveyance)</b>	None
<b>Environmental hazards (IMDG or other)</b>	None
<b>Bulk transport (usually more than 450 L in capacity)</b>	Possible
<b>Section 15. Regulatory information</b>	
<b>Safety/health Canadian regulations specifics</b>	Refer to Section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).
<b>Environmental Canadian regulations specifics</b>	Refer to Section 3 for ingredient(s) of the DSL
<b>Safety/health/environmental outside regulations specifics</b>	
United States OSHA information: This product is regulated according to OSHA (29 CFR). United States EPA (Environmental Protection Agency) information: 40 CFR Refer to the ingredients listed in Section 3 & Sections 12; 13 & 14. United States TCSA information: Refer to the ingredients listed in Section 3. National Fire Protection Association (NFPA): HEALTH: 1 FLAMMABILITY: 1 INSTABILITY: 0 SPECIAL HAZARDS: Refer to Section 2 & 3. HAZARD SCALE: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe California Proposition 65: This product does not contain traces of a material that is known to the State of California to cause cancer or other reproductive harm.	



**Section 16. Other information**

<b>Date of the latest revision of the safety data sheet</b>   October 30, 2015 version 1 (NSS ENTREPRISE INC.)	
<b>References</b>	Safety Data Sheets from manufacturer/supplier & from Canadian Centre for Occupational Health and Safety, CCOHS.
<b>Abbreviations</b>	
ACGIH	American Conference of Governmental Industrial Hygienists
ATE	Acute toxicity estimate
CAS	Chemical Abstract Service
DSL	Domestic Substance List
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
LC	Lethal concentration
LD	Lethal Dosage
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program (U.S.A.)
OSHA	Occupational Safety and Health Administration (U.S.A.)
PEL	Permissible Exposure Limit
STEL	Short-term Exposure Limit
TDG	Transport of dangerous goods in Canada
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Materials Information System
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.	