MATERIAL SAFETY DATA SHEET

1. Product Identification:

Product Name:	**Milk Thistle** **Standardized powdered extract – 80% Silymarin**
Extract Ratio:	Approx 20 to 1 of extract.
Botanical Name:	*Silybum marianum*
Synonyms:	*Carduus marianus, Mariana mariana*
INCI Name:	Silybum marianum (milk thistle) extract
Country of Origin:	China

2. Classification:

Chemical Identification: Extract, milk thistle

24 HOUR EMERGENCY TELEPHONE NUMBER: (613)-996-6666 CANUTEC

3. Hazardous Ingredients Information:

N/A

4. Physical & Chemical Properties:

Appearance:	Fine yellow powder.
Odor:	Characteristic odor.
Solubility:	Partially soluble in hydro-alcoholic solutions.
Mesh Size:	NLT 90 % through 80 mesh-size.
Assay:	NLT 80 % silymarin
Ash Content:	NMT 5 %
Moisture Content:	NMT 5 %
Heavy Metals:	NMT 10 ppm
Pesticides Residues:	NMT 1 ppm
Total Plate Count:	NMT 1000 cfu/g
Total Yeast & Mold:	NMT 100 cfu/g
E. Coli:	Negative
Salmonella	Negative
Staphylococcus:	Negative
Method of Extraction:	Hydro-alcoholic extraction of the macerated dried seeds.
Extraction Solvent:	65 % v/v Grain alcohol.
Constituents:	silybin, silybinin, silychistin, silydianin, silymonin, silyandrin
Shelf-life:	2 years if sealed and store away from direct sunlight.

5. Fire/Explosion Hazard:

Non-flammable.

6. Reactivity/Stability Data:

Reactivity: Stable.
Decomposition: When heated to decomposition produces carbon dioxide and monoxide smoke.

7. Toxicological Properties/Information:

Small particles can be irritating to the mucus membrane.

8. Preventive Data:

Spillage: Wash with copious amounts of water into sanitary sewer or mop up and wash down area.
Environment: Sanitary sewer or landfill is in accordance with local, state, and federal-pollution regulations.
Storage: Pack in aluminum foil bag with plastic bag inside.
Store in a well-closed container away from moisture and direct sunlight.

9. First Aid Measures:

Eye contact: Flush with water for at least 10 minutes.
Inhalation: Avoid casual breathing.
Ingestion: Rinse mouth.
Skin contact: Wash with soap and plenty of water.

11. Individual Protection for Industrial and Bulk Use:

Avoid breathing in product – small particles can be a nuisance.
Wear dusk mask, gloves, goggles and overall.

12. Preparation Information:

Quality Assurance
New Directions Aromatics Inc.
Brampton ON, L7A 1C5

Revision Date: July 28, 2009.

Disclaimer

The information contained in this Certificate of Analysis and Material Safety Data Sheet is obtained from current and reliable sources. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied is made as to the effect(s) of such use(s) (including damage or injury), or the results obtained.

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CERTIFICATE OF ANALYSIS

PRODUCT: MILK THISTLE P.E. 80%

PRODUCT NO: 27039	**LOT NO: 27039-04A**

	Specifications:	**Results:**
Appearance:	Fine yellow powder.	Complies
Odor:	Characteristic odor.	Complies
Solubility:	Partially soluble in hydro-alcoholic solutions.	Complies
Mesh Size:	NLT 90 % through 80 mesh-size.	Complies
Assay:	NLT 80 % silymarin	Complies
Ash Content:	NMT 5 %	Complies
Moisture Content:	NMT 5 %	Complies
Heavy Metals:	NMT 10 ppm	Complies
Pesticides Residues:	NMT 1 ppm	Complies
Solvent Residues:	NMT 0.01 %	Complies
Total Plate Count:	NMT 1000 cfu/g	Complies
Total Yeast & Mold:	NMT 100 cfu/g	Complies
E. Coli:	Negative	Complies
Salmonella	Negative	Complies
Staphylococcus:	Negative	Complies