

Issue Date 26-Jun-2018

Revision Date Not applicable.

Version 1

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product identifier**

**Product Name** DSM1  
**Product Code** MRA-1161

**Other means of identification**

**Synonyms** Not available.

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Material is authorized for research, non-commercial purposes only.  
**Uses Advised Against** Not available.

**Details of the supplier of the safety data sheet****Supplier Address**

BEI Resources  
10801 University Blvd.,  
Manassas, VA,  
USA, 20110-2204.

**Emergency telephone number**

**Company Phone Number** (800) 359-7370/ (703) 365-2727  
**24 Hour Emergency Phone Number** Chemtrec (US): 1-800-424-9300.  
Domestic: (703) 365-2710.  
International: +1(703)-527-3887.

**2. HAZARDS IDENTIFICATION****Classification****Health Hazards**

Not classified.

**Physical Hazards**

Not classified.

**OSHA Regulatory Status**

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard/Globally Harmonized System of Classification and Labelling of Chemicals (GHS); (29 CFR 1910.1200; Revision 3).

**Label elements****Emergency Overview**

Normal precautions common to safe manufacturing practice should be followed in handling and storage.

**Appearance** White powder.

**Physical State** Solid.

**Odor** Not available.

**Hazards not otherwise classified (HNOC)**

Biosafety Level 1

**Other information**

Not available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

This product is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200; Revision 3).

**Product name** DSM1.  
**Chemical name** 5-methyl[1,2,4]triazolo[1,5-a]pyrimidin-7-yl)naphthalen-2-ylamine;  
5-methyl-N-(2-naphthyl)[1,2,4]triazolo[1,5-a]pyrimidin-7-amine.  
**Chemical Family** Triazolopyrimidine.  
**Chemical nature** Antimalarial; *Plasmodium falciparum* dihydroorotate dehydrogenase (PfDHODH) inhibitor.

Chemical Name	CAS No.	Weight-%
DSM1	92872-51-0	100

**4. FIRST AID MEASURES****First aid measures**

**Eye Contact** Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

**Skin Contact** Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes or until medical aid is available. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before re-use or discard. If skin irritation occurs: Get medical advice/attention.

**Inhalation** Remove source of exposure or move person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. Immediately call a POISON CENTER/doctor.

**Ingestion** Rinse mouth. Immediately call a POISON CENTER/doctor. If breathing has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Treatment of fluid and electrolyte loss is usually achieved through oral rehydration.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Not available.

**Indication of any immediate medical attention and special treatment needed**

**Note to Physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** None known.

**Specific hazards arising from the chemical**

Hazardous decomposition products.

**Hazardous Combustion Products** Not available.

**Explosion data**

**Sensitivity to Mechanical Impact** None known.

**Sensitivity to Static Discharge** None known.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Wear appropriate personal protective equipment (see Section 8). Keep unnecessary personnel away. Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**

**Environmental Precautions** See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Patient/Victim: Wash with soap and water. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Do not take clothing home.  
Equipment/Environment: Mix with sand or similar inert absorbent material, sweep up and keep in a tightly closed container for disposal

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on Safe Handling** This product should be handled only by qualified chemists, who should take into account fire, health and chemical hazards given in this sheet. Use aseptic procedures. Decontamination of work surfaces daily, after finishing work and following spills. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mist. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored. Access to the laboratory is restricted when work is being conducted. Proper signage should be posted at the entrance. Frequent and careful hand-washing and laboratory decontamination should be strictly enforced. Ventilation Requirements: Use only with adequate ventilation to control air contaminants to their exposure limits. Required HEPA-filtered vacuum lines.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** All containers must be properly labelled. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous. If frozen suspension, store intact at -70°C. If the item is freeze-dried, store at -20°C. Freeze-dried products are hygroscopic and must be protected from exposure to moisture and oxygen during storage.

**Packaging materials** Packaged in brown glass vials. Store closed vials in a dry place.

**Incompatible materials** Strong oxidants.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with Occupational Exposure Limits (OEL) established by the region-specific regulatory bodies.

### Appropriate engineering controls

**Engineering Controls** The health hazard risks of handling this material are dependent on factors, such as physical form and quantity. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels as low as reasonably achievable.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** In laboratory, medical or industrial settings, safety glasses with side shields are highly recommended. The use of goggles or full face protection may be required depending on the industrial exposure setting. Contact a health and safety professional for specific information.

**Skin and Body Protection** In laboratory, medical or industrial settings, gloves and lab coats are recommended. The use of additional personal protective equipment such as shoe coverings, gauntlets, hoods or head coverings may be necessary. Contact a health and safety professional for specific information.

**Respiratory Protection** Not required for normal handling of packed product. Respirators may be required for certain laboratory and manufacturing tasks if engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (where the exposure limits have not been established). Workplace risk assessments should be completed before specifying and implementing respirator usage. All respirators must conform to specifications for efficiency and performance indicated by OSHA Standard 29 CFR 1910.134.

**General Hygiene Considerations** 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Solid.	<b>Odor</b>	Not available.
<b>Appearance</b>	White powder in brown glass vials.	<b>Odor Threshold</b>	Not available.
<b>Color</b>	White.		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	Not available.	
Melting Point/Freezing Point	220°C	
Boiling Point/Boiling Range	Not available.	
Flash Point	Not available.	
Evaporation Rate	Not available.	
Flammability (solid, gas)	Not available.	
Flammability Limit in Air		
Upper Flammability Limit:	Not available.	
Lower Flammability Limit:	Not available.	
Vapor Pressure	Not available.	
Vapor Density	Not available.	

Specific Gravity	Not available.
Water Solubility	Insoluble in water.
Solubility in Other Solvents	Soluble in dimethylsulfoxide (DMSO)
Partition Coefficient	Not available.
Autoignition Temperature	Not available.
Decomposition Temperature	Not available.
Kinematic Viscosity	Not available.
Dynamic Viscosity	Not available.
Explosive Properties	Not available.
Oxidizing Properties	Not available.

**Other information**

Softening Point	Not available.
Molecular Weight	275.31 g/mol
VOC Content (%)	Not available.
Density	Not available.
Bulk Density	Not available.

**10. STABILITY AND REACTIVITY****Reactivity**

Non-flammable.

**Chemical stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

Not available.

**Conditions to avoid**

Protect from light.

**Incompatible materials**

Strong oxidants.

**Hazardous decomposition products**

Carbon oxides, nitrogen oxides.

**11. TOXICOLOGICAL INFORMATION****Product Information**

Acute Toxicity	No data available.
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**Information on toxicological effects**

Symptoms	Not available.
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**Delayed and immediate effects as well as chronic effects from short- and long-term exposure**

Skin Corrosion/Irritation	No data available.
Serious Eye Damage/Eye Irritation	No data available.
Sensitization	No data available.
Germ Cell Mutagenicity	No data available.
Carcinogenicity	No data available.

Reproductive Toxicity	No data available.
STOT - Single Exposure	Not classified.
STOT - Repeated Exposure	Not classified.
Aspiration Hazard	Not applicable.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Not available.

### Persistence and degradability

No data available.

### Bioaccumulation

No data available.

### Mobility

Not available.

### Other adverse effects

No data available.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations. Do not reuse container.
U.S. EPA Waste Number	Not available.
California Hazardous Waste Codes	Not available.

This product does not contain substances that are listed with the State of California as hazardous waste.

## 14. TRANSPORT INFORMATION

### DOT

Proper shipping name Not determined.

### IATA

Proper shipping name Not determined.

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Regulations****California Proposition 65**

No component is on the Prop 65 list.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated by state right-to-know regulations.

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable.

**16. OTHER INFORMATION**

Prepared By	IES Engineers
Issue Date	20-Jun-2018
Revision Date	Not applicable.
Revision Note	New SDS.

**Disclaimer**

BEI Resources considers that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. The information contained herein is designated only as guidance for safe handling, storage and use of the substance and is not a specification nor does it guarantee any specific properties. Only competent personnel, within a controlled environment should handle all chemicals. BEI Resources is not to be held liable for any loss, injury or damage from contact with the product.

**End of Safety Data Sheet**