



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 12-Jun-2020

Version 1.1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name 2-Methyl-4,6-dinitrophenol
Product Code SC-238139

Recommended use of the chemical and restrictions on use

For research use only. Not intended for diagnostic or therapeutic use.

Details of the supplier of the safety data sheet

Santa Cruz Biotechnology, Inc.
10410 Finnell Street
Dallas, TX 75220
831.457.3800
800.457.3801
scbt@scbt.com

Emergency telephone number

Chemtrec
1.800.424.9300 (Within USA)
+1.703.527.3887 (Outside USA)

2. HAZARDS IDENTIFICATION

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification

Acute toxicity - Oral Category 1
Acute toxicity - Dermal Category 1
Acute toxicity - Inhalation (Vapors) Category 1
Acute toxicity - Inhalation (Dusts/Mists) Category 1
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1
Skin sensitization Category 1
Germ Cell Mutagenicity Category 2
Carcinogenicity Category 1B

Label elements

Signal word Danger
Hazard statements Fatal if inhaled
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
Suspected of causing genetic defects
May cause cancer
Fatal in contact with skin
Fatal if inhaled
Fatal if swallowed

Symbols/Pictograms



Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product



Precautionary Statements - Response

Do not get in eyes, on skin, or on clothing
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wear respiratory protection
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 IF exposed or concerned: Get medical advice/attention
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 IF ON SKIN: Gently wash with plenty of soap and water
 Immediately call a POISON CENTER or doctor/physician
 Remove/Take off immediately all contaminated clothing
 Wash contaminated clothing before reuse
 If skin irritation or rash occurs: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth
 Store locked up Store in a well-ventilated place. Keep container tightly closed
 Dispose of contents/container to an approved waste disposal plant

Precautionary Statements - Storage

Precautionary Statements - Disposal

Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC)

Risk of explosion by shock, friction, fire or other sources of ignition

Other Information

Other hazards

Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

NFPA

Health hazards	2
Flammability	0
Stability	0
Physical and chemical properties	-



HMIS

Health hazards	2
Flammability	0
Physical hazards	0
Personal protection	-
* = Chronic Health Hazard	

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 534-52-1
 Molecular Weight 198.13
 Formula C₇H₆N₂O₅

Chemical name	CAS No.	Weight-%	Oral LD50	Dermal LD50	Inhalation LC50
2-Methyl-4,6-dinitrophenol	534-52-1	>98	= 25 mg/kg (Rat) = 7 mg/kg (Rat)	= 1000 mg/kg (Rabbit) = 200 mg/kg (Rat) = 1 g/kg (Rabbit)	= 0.23 mg/L (Rat) 4 h

4. FIRST AID MEASURES

First Aid Measures

General advice Immediate medical attention is required. If symptoms persist, call a physician.



Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. If symptoms persist, call a physician.
Skin Contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water.
Inhalation	Remove to fresh air Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation Immediate medical attention is required If not breathing, give artificial respiration Move to fresh air in case of accidental inhalation of vapors If symptoms persist, call a physician
Ingestion	Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Clean mouth with water and drink afterwards plenty of water. Call a physician.
Self-protection of the first aider	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the chemical In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous combustion products Carbon oxides. Nitrogen oxides (NOx).

Explosion data

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

Protective equipment and precautions for firefighters

Protective equipment and precautions for firefighters Wear self-contained breathing apparatus and protective suit. Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. 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. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Desiccate at room temperature.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Methyl-4,6-dinitrophenol 534-52-1	TWA: 0.2 mg/m ³ S*	TWA: 0.2 mg/m ³ (vacated) TWA: 0.2 mg/m ³ Dinitro-o-cresol (vacated) S* Dinitro-o-cresol S*	IDLH: 5 mg/m ³ TWA: 0.2 mg/m ³

NIOSH IDLH *Immediately Dangerous to Life or Health*

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	No information available
Odor	No information available

<u>Property</u>	<u>Values</u>
pH	No information available
Melting point/freezing point	83 °C
Boiling point	No information available
Flash point	No information available
Liquid Density	1.5 g/cm ³
Evaporation rate	No information available
Upper flammability limits	No information available
Lower flammability limit	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	2.27
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not applicable
Chemical stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	No information available.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	Strong oxidizing agents.
Hazardous Decomposition Products	Carbon oxides. Nitrogen oxides (NO _x).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	No data available.
Eye contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

Information on toxicological effects

Symptoms	No information available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity	Prolonged or repeated exposure increases the risk. Possible risk of irreversible effects. Avoid repeated exposure.
Target Organ Effects	Central Vascular System (CVS), Endocrine system.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.



Chemical name	ACGIH	IARC	NTP	OSHA
2-Methyl-4,6-dinitrophenol 534-52-1	-	Group 2A	-	X

IARC (International Agency for Research on Cancer) Group 2A - Probably Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor) X - Present

Numerical measures of toxicity - Product Information

Unknown acute toxicity No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	0 mg/kg
ATEmix (dermal)	5 mg/kg
ATEmix (inhalation-dust/mist)	0 mg/l
ATEmix (inhalation-vapor)	0.2 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
2-Methyl-4,6-dinitrophenol 534-52-1	-	0.037 - 0.117: 96 h Oncorhynchus mykiss mg/L LC50 static 1.4 - 1.7: 96 h Pimephales promelas mg/L LC50 flow-through 0.18 - 0.28: 96 h Lepomis macrochirus mg/L LC50 static	-	-

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Persistence and degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

Chemical name	Partition coefficient
2-Methyl-4,6-dinitrophenol 534-52-1	2.85

13. DISPOSAL CONSIDERATIONS

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging Do not reuse container.
Other Information Waste codes should be assigned by the user based on the application for which the product was used.
US EPA Waste Number P047
California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
2-Methyl-4,6-dinitrophenol 534-52-1	Toxic

14. TRANSPORT INFORMATION

**DOT**

UN/ID no	UN1598
Hazard Class	6.1
Packing Group	II
Proper shipping name	Dinitro-o-cresol
Reportable Quantity (RQ)	(2-Methyl-4,6-dinitrophenol: RQ (kg)= 4.54)
Description	UN1598, Dinitro-o-cresol, 6.1, II, Marine pollutant
Marine pollutant	This product contains a chemical which is listed as a marine pollutant according to DOT
Emergency Response Guide Number	153

IMDG

UN/ID no	UN1598
Hazard Class	6.1
Packing Group	II
Proper shipping name	Dinitro-o-cresol
Description	UN1598, Dinitro-o-cresol, 6.1, II, Marine pollutant
Special Provisions	43
EmS-No	F-A, S-A
Marine pollutant	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

IATA

UN/ID no	UN1598
Hazard Class	6.1
Packing Group	II
Proper shipping name	Dinitro-o-cresol
Description	UN1598, Dinitro-o-cresol, 6.1, II
ERG Code	6L

15. REGULATORY INFORMATION**International Inventories**

All of the components in the product are on the following Inventory lists

TSCA (United States): Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) South Korea (KECL): China (IECSC)
ENCS (Japan): Philippines (PICCS)

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2-Methyl-4,6-dinitrophenol	X	X	-	X	-	X	X	X	X	X

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US 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 which are 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	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No



Reactive hazard No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
2-Methyl-4,6-dinitrophenol 534-52-1		X	X	

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
2-Methyl-4,6-dinitrophenol 534-52-1	X	X	X

16. OTHER INFORMATION

Revision note No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet