

MATERIAL SAFETY DATA SHEET



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MATERIAL **Hop Pellets (Type 90)** REV. NUMBER **1.1** PAGE 1 OF 2
 ISSUED DATE: **February 2017** APPROVAL _____

PRODUCT INFORMATION

CHEMICAL NAME AND MOLECULAR FORMULA Not applicable. Whole hop cones, a raw agricultural commodity, are ground and pelletized.	CAS NO.(s) Not available.
SYNONYMS Pelletized, powdered hops	CHEMICAL FAMILY Not applicable. The desired ingredients include the hop bitter acids and hop essential oils.

HAZARDOUS COMPONENTS

Materials or Components	%	Hazard Data (TLV, LD%), LC50, etc.
Pelletized, powdered cones of the cultivated hop plant <i>Humulus lupulus</i> . Hop pellets are available from many varieties of hops. This MSDS applies equally to all varieties.	Not applicable	Not applicable

PRODUCT IDENTIFICATION

BOILING POINT	Not applicable. A solid.	SPECIFIC GRAVITY	Not applicable. A solid.
VAPOUR PRESSURE	Not applicable	% VOLATILE BY VOLUME (%)	Not applicable
VAPOUR DENSITY (Air = 1)	Not applicable	EVAPORATION RATE	Not applicable.
SOLUBILITY IN WATER	Slight	pH	Not applicable.
APPEARANCE & ODOUR	Solid pellets, approximately 6mm diameter and 10mm long. Colour: various shades of green depending on variety. Odour: typical, pungent, depends on variety.		

FIRE & EXPLOSION DATA

FLASH POINT (Method used)	FLAMMABILITY	Lel	Uel
Not applicable.	Not applicable	Unknown	Unknown
EXTINGUISHING MEDIA Water or CO ₂			
SPECIAL FIRE FIGHTING PROCEDURES None required.			
UNUSUAL FIRE AND EXPLOSION HAZARDS None known.			

REACTIVITY DATA

STABILITY: UNSTABLE <input type="checkbox"/> STABLE <input checked="" type="checkbox"/>	CONDITIONS TO AVOID None known
INCOMPATIBILITY (Materials to avoid) None reported	
HAZARDOUS DECOMPOSITION PRODUCTS None known	
HAZARDOUS POLYMERIZATION	CONDITIONS TO AVOID
May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	Not applicable

TOXICITY IDENTIFICATION

ORAL/PARENTERAL No TLV's established. Considered GRAS 21 CFR 182.20.			
DERMAL (acute) Not available			
EYE Not available	INHALATION Not available		
CHRONIC Not available			
CARCINOGENICITY:	NTP? Not listed	ARC Monographs? Not listed	OSHA Regulated? No

HEALTH HAZARD INFORMATION EFFECTS OF EXPOSURE

ORAL INGESTION

Hops and hop extracts are considered GRAS under 21 CFR 182.20. However, this is an extremely bitter substance. May cause irritation of mouth, throat and stomach.

EYE CONTACT

May be a mild irritant.

SKIN CONTACT

May cause skin irritation. Prolonged contact may cause dermatitis in some individuals.

INHALATION

Not applicable

HEALTH HAZARD INFORMATION EMERGENCY FIRST AID

ORAL INGESTION

Drink large amounts of milk or water to dilute. Vomiting may occur. Consult a physician.

EYE CONTACT

Wash affected eye with copious amounts of water. Seek medical attention if irritation persists.

SKIN CONTACT

Wash contacted area with warm, soapy water

INHALATION

Wear protective dust mask.

SPILL OR LEAK

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Normal clean-up procedures as for any agricultural commodity.

WASTE DISPOSAL METHOD (Comply with applicable federal, state, and local regulations.)

This is a biodegradable material that is acceptable at landfill sites.

SPECIAL PROTECTION INFO.

RESPIRATORY PROTECTION (Specify Type)

Wear protective dust mask for normal handling.

VENTILATION	LOCAL EXHAUST None.	SPECIAL None.
	MECHANICAL (general) None	OTHER Normal ventilation.

PROTECTIVE GLOVES

Normally not required

EYE PROTECTION

Not applicable

OTHER PROTECTIVE EQUIPMENT

Not applicable

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

None. Normal warehousing should be cold.

OTHER PRECAUTIONS

None required.

The information herein is furnished without warranty of any kind. This information should be used only as a supplement to information already in your possession concerning this product. The determination of whether and under what conditions the product should be used by your employees is yours to make.