# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

## 1.1. Product identifier

Product form : Mixture
Product name : Blast
Product code : M77032

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

### 1.3. Details of the supplier of the safety data sheet

JR Simplot Company P.O. Box 70013 Boise, ID 83707 T 1-208-336-2110

### 1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

#### **GHS-US** classification

Not classified

### 2.2. Label elements

### **GHS-US** labelling

No labelling applicable

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS-US)

Not applicable

## **SECTION 3: Composition/information on ingredients**

## 3.1. Substance

Not applicable

## 3.2. Mixture

Name	Product identifier	%	GHS-US classification
alpha-amylase	(CAS No) 9000-90-2	< 0.1	Resp. Sens. 1, H334
Cellulase	(CAS No) 9012-54-8	< 0.1	Resp. Sens. 1, H334
subtilisin	(CAS No) 9014-01-1	< 0.05	Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 STOT SE 3, H335
Lipase	(CAS No) 9001-82-1	< 0.01	Not classified

Full text of H-phrases: see section 16

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed

by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness

persist

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

## 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away

from other materials.

## 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Provide good ventilation in process area to prevent formation

of vapour.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container

closed when not in use.

Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

Blast		
ACGIH	Not applicable	
OSHA	Not applicable	
alpha-amylase (9000-90-2)		
ACGIH	Not applicable	
OSHA	Not applicable	

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Cellulase (9012-54-8)				
ACGIH	Not applicable	Not applicable		
OSHA	Not applicable	Not applicable		
subtilisin (9014-01-1)				
ACGIH	ACGIH Ceiling (mg/m³)	0.00006 mg/m³ (Subtilisins, as 100% crystalline active enzyme; USA; Momentary value; TLV - Adopted Value)		
OSHA	Not applicable	·		

Lipase (9001-82-1)	
ACGIH	Not applicable
OSHA	Not applicable

## 8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

## **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Powder.
Colour : Tan

Odour : Fermentation odor Odour threshold No data available : No data available рΗ : No data available Melting point Freezing point No data available Boiling point : No data available Flash point No data available Relative evaporation rate (butylacetate=1) : No data available : No data available Flammability (solid, gas) **Explosive limits** : No data available : No data available Explosive properties Oxidising properties No data available : No data available Vapour pressure : No data available Relative density Relative vapour density at 20 °C No data available

Solubility : Dispersible.

Water: Solubility in water of component(s) of the mixture :

· alpha-amylase: 1 g/100ml

Log Pow : No data available
Log Kow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

## 9.2. Other information

No additional information available

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## SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

## 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

## 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

alpha-amylase (9000-90-2)	
LD50 oral rat	> 7500 mg/kg (Rat)

subtilisin (9014-01-1)	
LD50 oral rat	3700 mg/kg (Rat)
ATE US (oral)	3700.000 mg/kg bodyweight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated

exposure)

: Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and

symptoms

: Based on available data, the classification criteria are not met.

## **SECTION 12: Ecological information**

### 12.1. Toxicity

alpha-amylase (9000-90-2)	
LC50 fish 1	> 100 mg/l (LC50)
EC50 Daphnia 1	> 100 mg/l (EC50)
Threshold limit algae 1	> 100 mg/l (EC50)

subtilisin (9014-01-1)	
LC50 fish 1	> 100 mg/l (LC50)

## 12.2. Persistence and degradability

Blast	
Persistence and degradability	Not established.

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alpha-amylase (9000-90-2)		
Persistence and degradability	Biodegradable in water. Not established.	
Cellulase (9012-54-8)		
Persistence and degradability	Not established.	
subtilisin (9014-01-1)		
Persistence and degradability	Biodegradability in water: no data available. Not established.	
Lipase (9001-82-1)		
Persistence and degradability Not established.		

### 12.3. Bioaccumulative potential

2101 Diodocumanaro potentia		
Blast		
Bioaccumulative potential	Not established.	
alpha-amylase (9000-90-2)		
Bioaccumulative potential	Not bioaccumulative. Not established.	
Cellulase (9012-54-8)		
Bioaccumulative potential	Not established.	
subtilisin (9014-01-1)		
Bioaccumulative potential	No bioaccumulation data available. Not established.	
Lipase (9001-82-1)		
Bioaccumulative potential	Not established.	

### 12.4. Mobility in soil

No additional information available

## 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

## **SECTION 14: Transport information**

## **Department of Transportation (DOT)**

In accordance with DOT

Not regulated for transport

**Additional information** 

Other information : No supplementary information available.

#### **ADR**

No additional information available

## Transport by sea

No additional information available

#### Air transport

No additional information available

## **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Lipase	CAS No 9001-82-1	< 0.01

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This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

### 15.2. International regulations

#### CANADA

No additional information available

### **EU-Regulations**

No additional information available

## Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

### **National regulations**

No additional information available

## 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

## **SECTION 16: Other information**

Other information : None.

## Full text of H-phrases

At of 11 principes.	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Resp. Sens. 1	Sensitisation — Respiratory, category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation
H318	Causes serious eye damage
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation

## SDS US (GHS HazCom 2012)

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