

SAFETY DATA SHEET

Revision Date 16-Apr-2015

Revision Number 1

1. Identification

Product Name PHENOL RED BROTH with and without ADDITIVES

Cat No. : R062202, R062212, R062222, R062232, R062224, R062242, R062252, R062272, R062282, R062292, R062302, R062312, R062322, R062326, R062332, R062342, R062352, R062362, R062372, R062382, R062412, R062416, R062432, R062436, R062442, R062444, R062452, R062454

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against No Information available

Details of the supplier of the safety data sheet

Company Remel 12076 Santa Fe Drive Lenexa, KS 66215 United States Telephone: 1-800-255-6730 Fax:1-800-621-8251	Emergency Telephone Number INFOTRAC - 24 Hour Number: 1-800-535-5053 Outside of the United States, call 24 Hour Number: 001-352-323-3500 (Call Collect)
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2. Hazard(s) identification

Classification
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met

Label Elements

Signal Word
Not Hazardous

Hazard Statements

Precautionary Statements

Storage

Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. Composition / information on ingredients

Component	CAS-No	Weight %
Caseins, hydrolyzates	65072-00-6	0.97
Phenol Red	34487-61-1	0.002
D-Glucose, 4-O-.beta.-D-glucopyranosyl-	528-50-7	0-1
Ribitol	488-81-3	0-1
L-Arabinopyranose	87-72-9	0-1
Glycerol	56-81-5	0-1
D-Galactose	59-23-4	0-1
.beta.-D-Lactose	63-42-3	0-1
D(+)-Maltose monohydrate	6363-53-7	0-1
D-Mannitol	69-65-8	0-1
D-Mannose	3458-28-4	0-1
D-Glucose, 6-O-.alpha.-D-galactopyranosyl-	585-99-9	0-1
Raffinose pentahydrate	17629-30-0	0-1
L(+)-Rhamnose monohydrate	10030-85-0	0-1
D-Glucitol	50-70-4	0-1
Sucrose	57-50-1	0-1
Trehalose dihydrate	6138-23-4	0-1
D-Xylose	58-86-6	0-1
Glucose	50-99-7	0-1
Inulin	9005-80-5	0-1
Galactitol	608-66-2	0-1
myo-Inositol	87-89-8	0-1

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms/effects	None reasonably foreseeable. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media	No information available

Flash Point No information available 44444 80031.2
Method - No information available

Autoignition Temperature No information available
Explosion Limits
Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

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.

NFPA

Health 2	Flammability 0	Instability 0	Physical hazards N/A
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6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.
Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Provide adequate ventilation.

7. Handling and storage

Handling Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycerol		(Vacated) TWA: 10 mg/m ³ (Vacated) TWA: 5 mg/m ³ TWA: 15 mg/m ³ TWA: 5 mg/m ³	
Sucrose	TWA: 10 mg/m ³	(Vacated) TWA: 15 mg/m ³ (Vacated) TWA: 5 mg/m ³ TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Glycerol	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³
Sucrose	TWA: 10 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 10 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	No information available
Odor	No information available
Odor Threshold	No information available
pH	No information available
Melting Point/Range	No data available
Boiling Point/Range	No information available
Flash Point	No information available 44444 80031.2
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Relative Density	No information available
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
VOC Content(%)	1

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	None under normal use conditions
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50

Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Dermal LD50

Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Vapor LC50

Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glycerol	12600 mg/kg (Rat)	10 g/kg (Rabbit)	570 mg/m ³ (Rat) 1 h
.beta.-D-Lactose	10 g/kg (Rat)	Not listed	Not listed
D-Mannitol	13500 mg/kg (Rat)	Not listed	Not listed
D-Glucitol	15900 mg/kg (Rat)	Not listed	Not listed
Sucrose	29700 mg/kg (Rat)	Not listed	Not listed
Trehalose dihydrate	4600 mg/kg (Rat)	Not listed	Not listed
Glucose	25.8 g/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic

No information available

Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation

No information available

Sensitization

No information available

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Caseins, hydrolyzates	65072-00-6	Not listed	Not listed	Not listed	Not listed	Not listed
Phenol Red	34487-61-1	Not listed	Not listed	Not listed	Not listed	Not listed
D-Glucose, 4-O-.beta.-D-glucopyra nosyl-	528-50-7	Not listed	Not listed	Not listed	Not listed	Not listed
Ribitol	488-81-3	Not listed	Not listed	Not listed	Not listed	Not listed
L-Arabinopyranose	87-72-9	Not listed	Not listed	Not listed	Not listed	Not listed
Glycerol	56-81-5	Not listed	Not listed	Not listed	Not listed	Not listed
D-Galactose	59-23-4	Not listed	Not listed	Not listed	Not listed	Not listed
.beta.-D-Lactose	63-42-3	Not listed	Not listed	Not listed	Not listed	Not listed
D(+)-Maltose monohydrate	6363-53-7	Not listed	Not listed	Not listed	Not listed	Not listed
D-Mannitol	69-65-8	Not listed	Not listed	Not listed	Not listed	Not listed
D-Mannose	3458-28-4	Not listed	Not listed	Not listed	Not listed	Not listed
D-Glucose, 6-O-.alpha.-D-galactop yranosyl-	585-99-9	Not listed	Not listed	Not listed	Not listed	Not listed
Raffinose pentahydrate	17629-30-0	Not listed	Not listed	Not listed	Not listed	Not listed
L(+)-Rhamnose monohydrate	10030-85-0	Not listed	Not listed	Not listed	Not listed	Not listed
D-Glucitol	50-70-4	Not listed	Not listed	Not listed	Not listed	Not listed
Sucrose	57-50-1	Not listed	Not listed	Not listed	Not listed	Not listed
Trehalose dihydrate	6138-23-4	Not listed	Not listed	Not listed	Not listed	Not listed
D-Xylose	58-86-6	Not listed	Not listed	Not listed	Not listed	Not listed
Glucose	50-99-7	Not listed	Not listed	Not listed	Not listed	Not listed
Inulin	9005-80-5	Not listed	Not listed	Not listed	Not listed	Not listed
Galactitol	608-66-2	Not listed	Not listed	Not listed	Not listed	Not listed
myo-Inositol	87-89-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects

No information available

Reproductive Effects

No information available.

Developmental Effects

No information available.

Teratogenicity

No information available.

STOT - single exposure

None known

STOT - repeated exposure	None known
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
L-Arabinopyranose	Not listed	37700 mg/L LC50 96 h	Not listed	Not listed
Glycerol	Not listed	51 - 57 mL/L LC50 96 h	Not listed	500 mg/L EC50 > 24 h

Persistence and Degradability No information available
Bioaccumulation/ Accumulation No information available.

Mobility

Component	log Pow
Glycerol	-1.76
Sucrose	-3.67
myo-Inositol	-2.08

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed The product is classified and labeled according to EC directives or corresponding national laws The product is classified and labeled in accordance with Directive 1999/45/EC No information available

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Caseins, hydrolyzates	X	X	-	265-363-1	-		X	X	X	X	X
Phenol Red	X	X	-	252-057-8	-		X	-	-	X	X
D-Glucose, 4-O-.beta.-D-glucopyranosyl-	X	X	-	208-436-5	-		X	-	X	X	-
Ribitol	X	X	-	207-685-7	-		X	-	X	-	-
L-Arabinopyranose	X	-	X	201-767-6	-		X	-	X	-	X
Glycerol	X	X	-	200-289-5	-		X	X	X	X	X
D-Galactose	X	X	-	200-416-4	-		X	X	X	X	X
.beta.-D-Lactose	X	X	-	200-559-2	-		X	-	X	X	X
D(+)-Maltose monohydrate	-	-	-	-	-		X	-	X	X	-
D-Mannitol	X	X	-	200-711-8	-		X	X	X	X	X

D-Mannose	X	X	-	222-392-4	-		X	-	X	X	X
D-Glucose, 6-O-.alpha.-D-galactopyranosyl-	X	X	-	209-568-6	-		-	-	X	X	-
Raffinose pentahydrate	-	-	-	-	-		-	-	X	X	-
L(+)-Rhamnose monohydrate	-	-	-	-	-		-	-	X	X	-
D-Glucitol	X	X	-	200-061-5	-		X	X	X	X	X
Sucrose	X	X	-	200-334-9	-		X	-	X	X	X
Trehalose dihydrate	-	-	-	-	-		X	-	X	X	-
D-Xylose	X	X	-	200-400-7	-		X	X	X	X	X
Glucose	X	X	-	200-075-1	-		X	X	X	X	X
Inulin	X	X	-	232-684-3	-		X	-	X	X	-
Galactitol	X	X	-	210-165-2	-		-	-	X	X	-
myo-Inositol	X	X	-	201-781-2	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313 Not applicable

SARA 311/312 Hazardous Categorization

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

Clean Water Act Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA
Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Glycerol	X	X	X	-	X
Sucrose	X	-	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class D2B Toxic materials



16. Other information

Prepared By Regulatory Affairs
 Thermo Fisher Scientific
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Revision Date 16-Apr-2015

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Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Disclaimer

The information provided on this 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of SDS