· /

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.
Skin Contact	Wash off immediately with plenty of water. Get medical attention if symptoms occur.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
Ingestion	Do not induce vomiting. Get medical attention if symptoms occur.
Most important symptoms/effects Notes to Physician	No information available. 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 Method -	No information available No information available
Autoignition Temperature Explosion Limits	No information available
Upper Lower Sensitivity to Mechanical Impac Sensitivity to Static Discharge	

Specific Hazards Arising from the Chemical

9. Physical and chemical properties

Physical State Appearance Odor **Odor Threshold** pН Melting Point/Range Boiling Point/Range Flash Point **Evaporation Rate** Flammability (solid,gas) Flammability or explosive limits Upper Lower Vapor Pressure Vapor Density **Relative Density**

Powder Solid White Slight No information available 5.4-6.0 1% aq.sol 270 - 275 °C / 518 - 527 °F No information available No information available No information available No information available

No data available No data available negligible No information available 0.754 (F0 180 Tf 0 g 139ble

L-Phenylalanine		Revision Date 09-Sep-2014							
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							
L-Phenylalanine 63-91-2 Mutagenic Effects	Not listed Not listed Not listed No information available	Not listed Not listed							
Reproductive Effects	No information available.								
Developmental Effects	No information available.								
Teratogenicity	No information available.								
STOT - single exposure STOT - repeated exposure	None known None known								
Aspiration hazard	No information available								
Symptoms / effects,both acute and delayed	No information available								
Endocrine Disruptor Information	No information available								
Other Adverse Effects	The toxicological properties have not been fully investigated. See actual entry in RTECS fo complete information.								
	12. Ecological information								
<u>Ecotoxicity</u> Do not empty into drains.									
Persistence and Degradability	No information available								
Bioaccumulation/ Accumulation	No information available.								
Mobility	No information available.								
	13. Disposal considerations								
Waste Disposal Methods	Chemical waste generators must determine whether a disca hazardous waste. Chemical waste generators must also co national hazardous waste regulations to ensure complete ar	nsult local, regional, and							
	14. Transport information								
<u>DOT</u> TDG IATA IMDG/IMO	Not regulated Not regulated Not regulated Not regulated								
	15. Regulatory information								
International Inventories									
Component TSCA L-Phenylalanine X	DSLNDSLEINECSELINCSNLPPICCSENX-200-568-1-XX	$\begin{array}{ccc} AICS & IECSC & KECL \\ X & X & X & X \end{array}$							

L-Phenylalanine	Х	Х	-	200-568-1	-	Х	Х	Х	Х
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

Print Date

Revision Summary

TSCA 12(b)	Not applicable					
SARA 313	Not applicable					
SARA 311/312 Hazardous Categ Acute Health Hazard Chronic Health Hazard Fire Hazard Sudden Release of Pressure Reactive Hazard	No No No					
Clean Water Act	Not applicable					
Clean Air Act	Not applicable					
OSHA Occupational Safety and H Not applicable	lealth Administration					
CERCLA Not applicable						
California Proposition 65	This product does not contain any Proposition 65 chemicals					
State Right-to-Know	Not applicable					
U.S. Department of Transportat	ion					
Reportable Quantity (RQ): DOT Marine Pollutant DOT Severe Marine Pollutant	N N N					
U.S. Department of Homeland S This product does not contain any						
Other International Regulations						
Mexico - Grade	No information available					
Canada This product has been classifie the MSDS contains all the inform	ed in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and mation required by the CPR					
WHMIS Hazard Class	Non-controlled					
	16. Other information					
Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com					
Creation Date Revision Date	09-Sep-2014 09-Sep-2014					

09-Sep-2014 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 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