Sigma-Aldrich.

# SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Version 9.3 Revision Date 08.02.2024 Print Date 30.03.2025 GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

1.1 Product	identifiers
-------------	-------------

Product name		:	Organic Acid Metabolite Library of Standards
	Product Number Brand REACH No.	:	OAMLS Sigma This product is a mixture. REACH Registration Number see section 3.

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

Identified uses	:	Laboratory chemicals, Manufacture of substances
Uses advised against	:	For R&D use only. Not for pharmaceutical, household or other
		uses.

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

÷

Company

#### **1.4 Emergency telephone**

Emergency Phone # : +(44)-870-8200418 (CHEMTREC (GB)) +(353)-19014670 (CHEMTREC Ireland) 001-803-017-9114 (CHEMTREC India)

This is a summary SDS for a kit. For the full SDS for each of the components listed in section 16 please visit our website.

# **SECTION 2: Hazards identification**

2.1	Classification of the substance or Acute toxicity, (Category 3)	<b>mixture</b> H301: Toxic if swallowed.
	Acute toxicity, (Category 4)	H332: Harmful if inhaled.
	Acute toxicity, (Category 4)	H312: Harmful in contact with skin.
	Skin corrosion, (Sub-category 1A)	H314: Causes severe skin burns and eye damage.

Sigma- OAMLS

Page 1 of 45



	Serious eye damage, (Categ 1)	Jory	H318: Causes serious eye damage.
	Skin sensitization, (Categor	y 1)	H317: May cause an allergic skin reaction.
	Specific target organ toxicit single exposure, (Category Respiratory system		H335: May cause respiratory irritation.
	Specific target organ toxicit repeated exposure, (Catego Lungs		H372: Causes damage to organs through prolonged or repeated exposure if inhaled.
	Long-term (chronic) aquatic hazard, (Category 3)	2	H412: Harmful to aquatic life with long lasting effects.
2.2	Label elements		
	Labelling according Regu Pictogram	lation (I	EC) No 1272/2008
	Signal Word	Danger	
	Hazard Statements H301 H312 + H332 H314 H317 H335 H372 H412	Harmful Causes May cau May cau Causes repeated	swallowed. in contact with skin or if inhaled. severe skin burns and eye damage. ise an allergic skin reaction. ise respiratory irritation. damage to organs (Lungs) through prolonged or d exposure if inhaled. to aquatic life with long lasting effects.

**Precautionary Statements** P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. IF ON SKIN (or hair): Take off immediately all contaminated P303 + P361 + P353 clothing. Rinse skin with water. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 Get medical advice/ attention if you feel unwell. Supplemental Hazard none Statements

# Reduced Labeling (<= 125 ml)

Sigma- OAMLS

The life science business of Merck operates as MilliporeSigma in the US and Canada

Page 2 of 45



Pictogram	
Signal Word	Danger
Hazard Statements H301 H317 H372	Toxic if swallowed. May cause an allergic skin reaction. Causes damage to organs through prolonged or repeated
H314 H412	exposure if inhaled. Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.
Precautionary Statements P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/ attention if you feel unwell.
Supplemental Hazard Statements	none

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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

Refer to component SDS

# SECTION 4: First aid measures

Refer to component SDS

# **SECTION 5: Firefighting measures**

Refer to component SDS

# **SECTION 6: Accidental release measures**

Refer to component SDS

Sigma- OAMLS

The life science business of Merck operates as MilliporeSigma in the US and Canada

Page 3 of 45



# SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

#### Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

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

#### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage stabilityRecommended storage temperature

# -20 °C

#### Storage class

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

#### **SECTION 8: Exposure controls/personal protection**

Refer to component SDS

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

Refer to component SDS

# **SECTION 10: Stability and reactivity**

Refer to component SDS

### **SECTION 11: Toxicological information**

Refer to component SDS

#### **SECTION 12: Ecological information**

Refer to component SDS

Sigma- OAMLS

Page 4 of 45



#### **SECTION 13: Disposal considerations**

Refer to component SDS

SECTION 14: Transport informat	SECTION 14: Transport information							
<b>14.1 UN number</b> ADR/RID: 3316	IMDG: 3316	IATA: 3316						
<b>14.2 UN proper shipping name</b> ADR/RID: CHEMICAL KIT IMDG: CHEMICAL KIT IATA: Chemical kit								
<b>14.3 Transport hazard class(es)</b> ADR/RID: 9	IMDG: 9	IATA: 9						
14.4 Packaging group ADR/RID: II	IMDG: II	IATA: II						
14.5 Environmental hazards ADR/RID: no	IMDG Marine pollutant: no	IATA: no						
14.6 Special precautions for use	r							
Further information :	No data available							

#### **SECTION 15: Regulatory information**

# **15.1** Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Refer to component SDS

# **15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

# **SECTION 16: Other information**

#### **Kit Components:**

2-Hydroxyisocaproic acid L-?-Hydroxyglutaric acid disodium salt L-(+)-Tartaric acid 2-Hydroxyphenylacetic acid N-(2-Methylbutyryl)glycine Disodium (2RS)-2hydroxyadipate

Eye Dam. 1; H318 Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335 Skin Irrit. 2; Eye Irrit. 2; H315, H319

Sigma- OAMLS

The life science business of Merck operates as MilliporeSigma in the US and Canada

Page 5 of 45



3-(4-Hydroxyphenyl)propionic acid (E)-2-Octenedioic Acid 2-Isopropylmalic acid Indole-3-butyric acid

Trisodium 2methylcitrate, racemic mixture of diastereomers Phytic acid sodium salt hydrate 2-Oxobutyric acid (R)-3-Hydroxybutyric acid 4-Methyl-2-oxovaleric acid Oxaloacetic acid

?-Ketoglutaric acid 2-Oxoadipic acid

3-Hydroxy-3methylglutaric acid 3-Hydroxymandelic acid Tricarballylic acid

?-(m-Hydroxyphenyl)hydracryl ic Acid Indole-3-propionic acid DL-Vanillactic acid lithium salt hydrate ?-Aminobutyric acid 3-Hydroxy-2methylbutanoic Acid 3-Methylglutaric acid 3-Hydroxyglutaric acid m-Tolylacetic acid 3-Methylcrotonyl Glycine 3-Methyladipic acid

3-Propylmalic acid 3-Hydroxysuberic Acid DL-4-Hydroxy-3methoxymandelic acid 3-Hydroxy Sebacic Acid

4-Hydroxyhippuric Acid Lithium acetoacetate L-2-Aminobutyric acid

Sigma- OAMLS

The life science business of Merck operates as MilliporeSigma in the US and Canada

Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H301, H315, H319, H335

Acute Tox. 4; H302

Skin Corr. 1B; Eye Dam. 1; H314

Skin Corr. 1B; H314

Eye Irrit. 2; H319 Eye Dam. 1; H318 Skin Irrit. 2; Eye Irrit. 2; H315, H319

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335

Skin Irrit. 2; Eye Irrit. 2; H315, H319

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335

Skin Irrit. 2; Eye Irrit. 2; H315, H319

Skin Sens. 1; H317





?-Keto Isovaleric Acid Sodium Salt 2-Hydroxy-3methylbutyric acid L-Pyroglutamic acid

5-Aminolevulinic Acid Hydrochloride Salt (2S,5R)-trans-5-Hydroxypiperidine-2carboxylicacid 4-Hydroxyphenylacetic acid Allantoin 4-Pyridoxolactone

cis-Aconitic acid

Xanthurenic acid Fumaric acid Benzoic acid

Citraconic acid Glutaric acid

Adipic acid 2,5-Furandicarboxylic acid L-Dihydroorotic acid

L-Ascorbic acid Hippuric acid Citric acid

N-(CINNAMOYL)GLYCINE L-Argininosuccinic acid lithium salt Maleic acid

Indole-3-carboxaldehyde Indole-3-carboxylic acid 3,4-Dihydroxyphenylacetic acid Gallic acid

3-Indoleacetic acid 3-Indoleacrylic acid

Kynurenic acid

Sigma- OAMLS

The life science business of Merck operates as MilliporeSigma in the US and Canada

Acute Tox. 4; H302

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335 Eye Dam. 1; Aquatic Chronic 3; H318, H412

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335 Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335

Eye Irrit. 2; H319 Skin Irrit. 2; Eye Dam. 1; STOT RE 1; H315, H318, H372 Acute Tox. 4; H302 Skin Corr. 1A; Eye Dam. 1; H314 Eye Dam. 1; H318 Eye Irrit. 2; H319

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335

Eye Irrit. 2; STOT SE 3; H319, H335 Acute Tox. 4; H302

Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; Skin Sens. 1; STOT SE 3; H302 + H312, H315, H317, H318, H335

Skin Irrit. 2; Eye Irrit. 2; H315, H319

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335





DL-Isocitric acid trisodium salt hydrate Indole-3-pyruvic acid

DL-Indole-3-lactic acid Prephenic acid barium salt Methylmalonic acid

Pipecolinic acid

(±)-Mevalonolactone L-(?)-Malic acid

Phenylacetic acid (RS)-Mevalonic acid lithium salt Orotic acid

Phenylpyruvic acid D-(+)-3-Phenyllactic acid N-Acetyl-L-aspartic acid (?) Quinic acid N-Acetyl-L-tyrosine Sodium (R)-?hydroxyisobutyrate Succinic acid Glutaconic acid 2-Hydroxy-3methylvaleric acid 4-Imidazoleacrylic acid 2-Furanacetic acid

Tiglyl Glycine 4,6-Dioxoheptanoic acid 3-Hydroxyhexanedioic Acid 2,3-Pyridinedicarboxylic acid 4-Hydroxyphenylpyruvic acid DL-p-Hydroxyphenyllactic Acid Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335

Acute Tox. 4; H302 + H332

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335 Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335

Skin Irrit. 2; Eye Irrit. 2; H315, H319 Eye Irrit. 2; H319

Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H302, H315, H319, H335

Eye Irrit. 2; H319

Eye Dam. 1; H318

Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; H302, H315, H318, H335

Eye Irrit. 2; STOT SE 3; H319, H335

Sigma- OAMLS

The life science business of Merck operates as MilliporeSigma in the US and Canada

Page 8 of 45



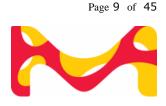
#### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM -American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. -Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIOC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS -Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

<b>Classification of the</b>	e mixture	Classification proc
Acute Tox.3	H301	Calculation method
Acute Tox.4	H332	Calculation method
Acute Tox.4	H312	Calculation method
Skin Corr.1A	H314	Calculation method
Eye Dam.1	H318	Calculation method
Skin Sens.1	H317	Calculation method
STOT SE3	H335	Calculation method
STOT RE1	H372	Calculation method
Aquatic Chronic3	H412	Calculation method

ification procedure:

Sigma- OAMLS



# **Further information**

Copyright 2020 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Copyright 2020 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.

Sigma- OAMLS

The life science business of Merck operates as MilliporeSigma in the US and Canada

A

Page 10 of 45



# **Kit Components:**

2-Hydroxyisocaproic acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

L-?-Hydrox	L-?-Hydroxyglutaric acid disodium salt					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous	
					substance or	
					mixture	
					according to	
					Regulation (EC)	
					No 1272/2008.	

L-(+)-Tartaric acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
		Danger	Causes serious eye damage.	Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.		

2-Hydroxyphenylacetic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
		Warning	Causes skin irritation. Causes serious	Avoid breathing dust/ fume/ gas/ mist/		

Sigma- OAMLS

The life science business of Merck operates as MilliporeSigma in the US and Canada



Page 11 of 45

	eye irritation. May cause respiratory irritation.	vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/ attention. Wear eye protection/ face protection. Wear protective	
--	--	--	--

N-(2-Methylbutyryl)glycine						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
	!	Warning	Causes skin irritation. Causes serious eye irritation.	Wash skin thoroughly after handling. If skin irritation occurs: Get medical advice/ attention. Wear eye protection/ face protection. If eye irritation persists: Get medical advice/ attention. Wear protective gloves. Take off contaminated clothing and wash it before reuse.		

The life science business of Merck operates as MilliporeSigma in the US and Canada

Page 12 of 45



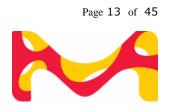
Disodium (2R	Disodium (2RS)-2-hydroxyadipate						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
					Not a hazardous		
					substance or		
					mixture		
					according to		
					Regulation (EC)		
					No 1272/2008.		

3-(4-Hydroxyphenyl)propionic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous	
					substance or	
					mixture	
					according to	
					Regulation (EC)	
					No 1272/2008.	

(E)-2-Octenedioic Acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous	
					substance or	
					mixture	
					according to	
					Regulation (EC)	
					No 1272/2008.	

2-Isopropyli	2-Isopropylmalic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.		

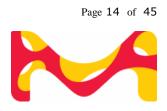
Indole-3-butyric acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
		Danger	Toxic if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF SWALLOWED: Immediately call a POISON CENTER/ doctor.		



to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wear eye protection/ face protection. Wear protective gloves.
--

Trisodium 2-methylcitrate, racemic mixture of diastereomers						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous	
					substance or	
					mixture	
					according to	
					Regulation (EC)	
					No 1272/2008.	

Phytic acid sodium salt hydrate						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
	!	Warning	Harmful if swallowed.	Wash skin thoroughly after handling. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Dispose of contents/ container to an approved waste disposal plant. Do not eat, drink or smoke when using this product.		

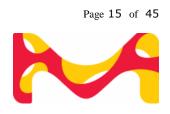


2-Oxobutyric	2-Oxobutyric acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
		Danger	Causes severe skin burns and eye damage.	Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.			

(R)-3-Hydr	(R)-3-Hydroxybutyric acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
					Not a hazardous		
					substance or		
					mixture		
					according to		
					Regulation (EC)		
					No 1272/2008.		

4-Methyl-2-oxovaleric acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
		Danger	Causes severe skin burns and eye damage.			

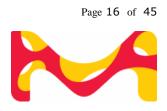
Oxaloacetic acid							
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
	()	Warning	Causes serious eye irritation.	Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and			



easy to do. Continue rinsing. Wear eye protection/ face protection. If eye irritation persists: Get modical advice/
medical advice/
attention.

?-Ketoglutar	ic acid				
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
		Danger	Causes serious eye damage.	Wear eye protection/ face protection. 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/ doctor.	

2-Oxoadipic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
	!	Warning	Causes skin irritation. Causes serious eye irritation.	Wash skin thoroughly after handling. If skin irritation occurs: Get medical advice/ attention. Wear eye protection/ face protection. If eye irritation persists: Get medical advice/ attention. Wear protective gloves. Take off contaminated clothing and		

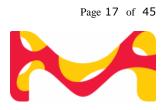


		wash it before	
		reuse.	

3-Hydroxy-3-	3-Hydroxy-3-methylglutaric acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
					Not a hazardous		
					substance or		
					mixture		
					according to		
					Regulation (EC)		
					No 1272/2008.		

3-Hydroxymandelic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.	

Tricarballylic	acid				
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/ attention. Wear eye protection/ face protection. Wear protective gloves.	



?-(m-Hydro	?-(m-Hydroxyphenyl)hydracrylic Acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.		

Indole-3-pro	Indole-3-propionic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.		

<b>DL-Vanillac</b>	DL-Vanillactic acid lithium salt hydrate						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.		

?-Aminobutyric acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.	

3-Hydroxy-2-methylbutanoic Acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
	()	Warning	Causes skin irritation. Causes serious eye irritation.	Wash skin thoroughly after handling. If skin irritation occurs: Get medical advice/ attention.		

The life science business of Merck operates as MilliporeSigma in the US and Canada



Page 18 of 45

Wear protective gloves. Take off contaminated clothing and wash it before reuse.		gloves. Take off contaminated clothing and wash it before
---	--	--

3-Methylglutaric acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.	

3-Hydroxyglutaric acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.	

m-Tolylacetic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.	

3-Methylcrotonyl Glycine						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
Identifier		woru	Statements	Statements	Not a hazardous	
					substance or	
					mixture	
					according to	

The life science business of Merck operates as MilliporeSigma in the US and Canada



Page 19 of 45

	Regulation (EC) No 1272/2008.
--	----------------------------------

3-Methyladi	pic acid				
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/ attention. Wear eye protection/ face protection. Wear protective gloves.	

3-Propylmalic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.	

3-Hydroxysuberic Acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous	
					substance or	
					mixture	
					according to	
					Regulation (EC)	
					No 1272/2008.	

The life science business of Merck operates as MilliporeSigma in the US and Canada

Page 20 of 45



DL-4-Hydroxy-3-methoxymandelic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
luciturier				Statements	Not a hazardous substance or mixture	
					according to Regulation (EC) No 1272/2008.	

3-Hydroxy Sebacic Acid							
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
		Warning	Causes skin irritation. Causes serious eye irritation.	Wash skin thoroughly after handling. If skin irritation occurs: Get medical advice/ attention. Wear eye protection/ face protection. If eye irritation persists: Get medical advice/ attention. Wear protective gloves. Take off contaminated clothing and wash it before reuse.			

4-Hydroxyhip	4-Hydroxyhippuric Acid								
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental				
identifier		Word	Statements	Statements	information				
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.				

Lithium acetoacetate								
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental			
identifier		Word	Statements	Statements	information			
					Not a hazardous			
					substance or			
					mixture			

The life science business of Merck operates as MilliporeSigma in the US and Canada

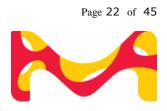


Page 21 of 45

			according to
			Regulation (EC)
			No 1272/2008.

L-2-Aminob	outyric acid				
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
		Warning	May cause an	Avoid breathing	
			allergic skin	dust/ fume/	
	•		reaction.	gas/ mist/	
				vapors/ spray. If	
				skin irritation or	
				rash occurs: Get	
				medical advice/	
				attention.	
				Dispose of	
				contents/	
				container to an	
				approved waste	
				disposal plant.	
				Contaminated	
				work clothing	
				should not be	
				allowed out of	
				the workplace.	
				Take off	
				contaminated	
				clothing and	
				wash it before	
				reuse. Wear	
				protective	
				gloves.	

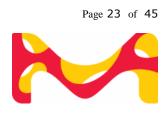
?-Keto Isovaleric Acid Sodium Salt							
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
		Warning	Harmful if	Wash skin			
			swallowed.	thoroughly after			
	•			handling. IF			
				SWALLOWED:			
				Call a POISON			
				CENTER/ doctor			
				if you feel			
				unwell. Rinse			
				mouth. Dispose			
				of contents/			
				container to an			
				approved waste			
				disposal plant.			
				Do not eat,			
				drink or smoke			



		when using this	
		product.	

2-Hydroxy-3	-methylbutyr	ic acid			
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/ attention. Wear eye protection/ face protection. Wear protective gloves.	

L-Pyroglutam	L-Pyroglutamic acid							
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information			
	Free contractions of the second	Danger	Causes serious eye damage. Harmful to aquatic life with long lasting effects.	Avoid release to the environment. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Dispose of contents/ container to an approved waste				



	disposal plant. Wear eye	
	protection/ face protection.	

5-Aminolevu	5-Aminolevulinic Acid Hydrochloride Salt							
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information			
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.			

(2S,5R)-tra	(2S,5R)-trans-5-Hydroxypiperidine-2-carboxylicacid							
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental			
identifier		Word	Statements	Statements	information			
					Not a hazardous			
					substance or			
					mixture			
					according to			
					Regulation (EC)			
					No 1272/2008.			

4-Hydroxyph	nenylacetic ac	cid			
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/ attention. Wear eye protection/ face protection.	

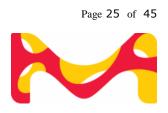


		Wear protective	
		gloves.	

Allantoin					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

4-Pyridoxola	actone				
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/ attention. Wear eye protection/ face protective gloves.	

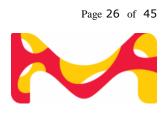
cis-Aconitic acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF ON SKIN: Wash with	



irritation.	plenty of water. Wear eye protection/ face protection. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wear protective gloves. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	water for
	Remove contact lenses, if present and
	easy to do. Continue rinsing.

Xanthurenic acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier	_	Word	Statements	Statements	information
					Not a hazardous
					substance or
					mixture
					according to
					Regulation (EC)
					No 1272/2008.

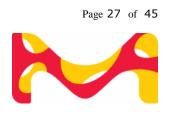
Fumaric acid					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
	()	Warning	Causes serious eye irritation.	Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.	



Continue
rinsing. Wear
eye protection/
face protection.
If eye irritation
persists: Get
medical advice/
attention.

Benzoic acio	1				-
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
		Danger	Causes skin irritation. Causes serious eye damage. Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled.	Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. 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/ doctor. Wash skin thoroughly after handling. Get medical advice/ attention if you feel unwell. Wear eye protection/ face protection. Wear protective gloves.	

Citraconic acid					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
Identifier		Warning	Harmful if	Wash skin	
		warning	swallowed.	thoroughly after	
	•			handling. IF	
				SWALLOWED:	
				Call a POISON	
				CENTER/ doctor	
				if you feel	



unwell. Rinse mouth. Dispose of contents/ container to an approved waste disposal plant.
Do not eat, drink or smoke when using this product.

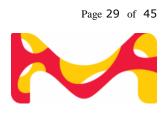
Glutaric aci		-		-	1
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
		Danger	Causes severe	Do not breathe	
			skin burns and	dusts or mists.	
	•		eye damage.	IF ON SKIN (or	
				hair): Take off	
				immediately all	
				contaminated	
				clothing. Rinse	
				skin with water.	
				Wear protective	
				gloves/	
				protective	
				clothing/ eye	
				protection/ face	
				protection. IF	
				INHALED:	
				Remove person	
				to fresh air and	
				keep	
				comfortable for	
				breathing.	
				Immediately call	
				a POISON	
				CENTER/ doctor.	
				IF IN EYES:	
				Rinse cautiously	
				with water for	
				several minutes.	
				Remove contact	
				lenses, if	
				present and	
				easy to do.	
				Continue	
				rinsing. Wash	
				contaminated	
				clothing before	
				reuse.	



Adipic acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
	E C C C C C C C C C C C C C C C C C C C	Danger	Causes serious eye damage.	Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	

2,5-Furandie	carboxylic aci	d			
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
	(!)	Warning	Causes serious eye irritation.	Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear eye protection. If eye irritation persists: Get medical advice/ attention.	

L-Dihydroorotic acid							
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
	(!)	Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep			



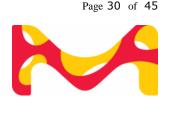
	comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/ attention. Wear eye protection/ face protection. Wear protective gloves.
--	---

L-Ascorbic ac	L-Ascorbic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
					No hazard		
					pictogram, no		
					signal word, no		
					hazard		
					statement(s), no		
					precautionary		
					statement(s)		
					required		

Hippuric acid					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

Citric acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
	()	Warning	Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a	

The life science business of Merck operates as MilliporeSigma in the US and Canada



Page 30 of 45

POISON CENTER/ d if you feel unwell. W skin thorou after handl IF IN EYES Rinse cauti with water several min Remove co lenses, if present an easy to do. Continue rinsing. U only outdo in a well- ventilated Wear eye protection	Yash Ighly ing. : ously for nutes. ntact d se ors or area.
protection/ protection.	

N-(CINNAMOYL)GLYCINE							
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
	!	Warning	Harmful if swallowed.	Wash skin thoroughly after handling. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. Dispose of contents/ container to an approved waste disposal plant. Do not eat, drink or smoke when using this product.			

L-Argininosuccinic acid lithium salt						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
					Not a hazardous substance or mixture according to	

The life science business of Merck operates as MilliporeSigma in the US and Canada



Page 31 of 45

		Regulation (EC) No 1272/2008.

Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
	P S	Danger	Harmful if	Avoid breathing	
		_	swallowed or in	dust/ fume/	
	Ă I		contact with	gas/ mist/	
			skin.	vapors/ spray.	
	$\sim$		Causes skin	IF SWALLOWED:	
			irritation.	Call a POISON	
			May cause an	CENTER/ doctor	
			allergic skin	if you feel	
			reaction.	unwell. Wash	
			Causes serious	skin thoroughly	
			eye damage.	after handling.	
			May cause	IF ON SKIN:	
			respiratory	Wash with	
			irritation.	plenty of	
				water.Call a	
				POISON	
				CENTER/ doctor	
				if you feel	
				unwell. Wear	
				protective	
				gloves/ protective	
				clothing/ eye	
				protection/ face	
				protection. IF IN	
				EYES: Rinse	
				cautiously with	
				water for	
				several minutes.	
				Remove contact	
				lenses, if	
				present and	
				easy to do.	
				Continue	
				rinsing.	

Indole-3-carboxaldehyde						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous	
					substance or	
					mixture	
					according to	
					Regulation (EC)	
					No 1272/2008.	

The life science business of Merck operates as MilliporeSigma in the US and Canada

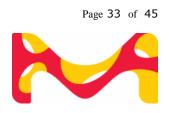


Page 32 of 45

Indole-3-carboxylic acid					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

3,4-Dihydroxyphenylacetic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
		Warning	Causes skin irritation. Causes serious eye irritation.	Wash skin thoroughly after handling. IF ON SKIN: Wash with plenty of water. Wear protective gloves/ eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention.		

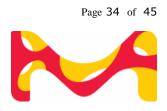
Gallic acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
	<b>!</b> >	Warning	Causes skin irritation. Causes serious eye irritation. May cause	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED:	



eye irritation
after handling. If
eye irritation persists: Get medical advice/
attention. Wear eye
protection/ face protection. Wear protective gloves.

3-Indoleaceti	3-Indoleacetic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
					Not a hazardous		
					substance or		
					mixture		
					according to		
					Regulation (EC)		
					No 1272/2008.		

3-Indoleacrylic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
	!	Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation		

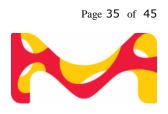


	persists: Get medical advice/ attention. Wear eye protection/ face protection. Wear protective gloves.
--	---

Kynurenic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.	

<b>DL-Isocitric</b>	DL-Isocitric acid trisodium salt hydrate						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
					Not a hazardous		
					substance or		
					mixture		
					according to		
					Regulation (EC)		
					No 1272/2008.		

Indole-3-pyruvic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/		



attention. Wear eye protection/ face
protection. Wear protective
gloves.

DL-Indole-3	DL-Indole-3-lactic acid				
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

	cid barium sa		Llad	Dus southans a	
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
		Warning	Harmful if	Avoid breathing	
			swallowed or if	dust/ fume/	
			inhaled.	gas/ mist/	
				vapors/ spray.	
				IF INHALED:	
				Remove person	
				to fresh air and	
				keep	
				comfortable for	
				breathing. Call a	
				POISON	
				CENTER/ doctor	
				if you feel	
				unwell. Dispose	
				of contents/	
				container to an	
				approved waste	
				disposal plant.	
				Wash skin	
				thoroughly after	
				handling. Do	
				not eat, drink or	
				smoke when	
				using this	
				product. Use	
				only outdoors or	
				in a well-	
				ventilated area.	

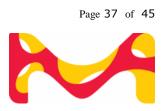
The life science business of Merck operates as MilliporeSigma in the US and Canada



Page 36 of 45

Methylmalo	nic acid				
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/ attention. Wear eye protection/ face protective gloves.	

Pipecolinic acid					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
		Warning	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. If eye irritation persists: Get medical advice/	



attention. Wear eye protection/ face
protection. Wear protective
gloves.

(±)-Mevalon	(±)-Mevalonolactone				
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

L-(?)-Malic Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
		Warning	Causes skin irritation. Causes serious eye irritation.	Wash skin thoroughly after handling. IF ON SKIN: Wash with plenty of water. Wear protective gloves/ eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention.	

The life science business of Merck operates as MilliporeSigma in the US and Canada

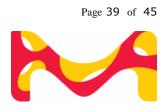


Page 38 of 45

Phenylaceti	c acid				
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
	!	Warning	Causes serious eye irritation.	Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear eye protection/ face protection. If eye irritation persists: Get medical advice/ attention.	

(RS)-Mevalo	(RS)-Mevalonic acid lithium salt				
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
					Not a hazardous
					substance or
					mixture
					according to
					Regulation (EC)
					No 1272/2008.

Orotic acid					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
		Warning	Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly	



after handling. If eye irritation persists: Get medical advice/ attention. Wear eye
protection/ face protection. Wear protective gloves.

Phenylpyruv	Phenylpyruvic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.		

D-(+)-3-Phe	D-(+)-3-Phenyllactic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.		

N-Acetyl-L-	N-Acetyl-L-aspartic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.		

(?) Quinic acid							
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
	(!)	Warning	Causes serious eye irritation.	Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes.			

The life science business of Merck operates as MilliporeSigma in the US and Canada



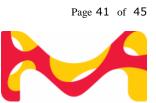
Page 40 of 45

Continue rinsing. eye pro face pro If eye in persists medical attentio
---

N-Acetyl-L-tyrosine						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental	
identifier		Word	Statements	Statements	information	
					Not a hazardous	
					substance or	
					mixture	
					according to	
					Regulation (EC)	
					No 1272/2008.	

Sodium (R)-	Sodium (R)-?-hydroxyisobutyrate						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information		
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.		

Succinic acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
	For the second s	Danger	Causes serious eye damage.	Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	

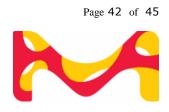


Glutaconic aci	Glutaconic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
					Not a hazardous		
					substance or		
					mixture		
					according to		
					Regulation (EC)		
					No 1272/2008.		

2-Hydroxy-	2-Hydroxy-3-methylvaleric acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
					Not a hazardous		
					substance or		
					mixture		
					according to		
					Regulation (EC)		
					No 1272/2008.		

4-Imidazolea	4-Imidazoleacrylic acid						
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental		
identifier		Word	Statements	Statements	information		
					Not a hazardous		
					substance or		
					mixture		
					according to		
					Regulation (EC)		
					No 1272/2008.		

2-Furanacetic acid						
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information	
		Danger	Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation.	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously		



Tiglyl Glycine					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
					Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

4,6-Dioxoheptanoic acid					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
					No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

3-Hydroxyhexanedioic Acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier	_	Word	Statements	Statements	information
					Not a hazardous
					substance or
					mixture
					according to
					Regulation (EC)
					No 1272/2008.

The life science business of Merck operates as MilliporeSigma in the US and Canada



Page 43 of 45

2,3-Pyridinedicarboxylic acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
		Warning	Causes serious	Avoid breathing	
			eye irritation.	dust/ fume/	
			May cause	gas/ mist/	
			respiratory	vapors/ spray.	
			irritation.	IF INHALED:	
				Remove person	
				to fresh air and	
				keep	
				comfortable for	
				breathing. Call a	
				POISON	
				CENTER/ doctor	
				if you feel unwell.Store in a	
				well-ventilated	
				place. Keep	
				container tightly	
				closed. Dispose	
				of contents/	
				container to an	
				approved waste	
				disposal plant.	
				Wear eye	
				protection/ face	
				protection. If	
				eye irritation	
				persists: Get	
				medical advice/	
				attention.	

4-Hydroxyphenylpyruvic acid					
Product	Pictogram	Signal	Hazard	Precautionary	Supplemental
identifier		Word	Statements	Statements	information
					Not a hazardous
					substance or
					mixture
					according to
					Regulation (EC)
					No 1272/2008.

DL-p-Hydroxyphenyllactic Acid					
Product identifier	Pictogram	Signal Word	Hazard Statements	Precautionary Statements	Supplemental information
					Not a hazardous substance or mixture according to Regulation (EC)

The life science business of Merck operates as MilliporeSigma in the US and Canada



Page 44 of 45

No 1272/2008.

The life science business of Merck operates as MilliporeSigma in the US and Canada



Page 45 of 45