



SAFETY DATA SHEET

Creation Date 13-Dec-2011

Revision Date 16-Jul-2013

Revision Number 2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Description: **KLIGLER IRON AGAR**
Cat No. **CM0033**

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

Recommended Use Laboratory chemicals
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company	Oxoid Ltd Wade Road Basingstoke, Hants, UK RG24 8PW Tel: +44 (0) 1256 841144 mbd-sds@thermofisher.com	Supplier Oxoid Ltd. Wade Road Basingstoke, Hants, UK RG24 8PW Telephone: +44 (0) 1256 841144
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E-mail address mbd-sds@thermofisher.com

1.4. Emergency telephone number

Carechem 24: +44 (0) 1865 407333

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Not hazardous

Physical hazards

Based on available data, the classification criteria are not met

Health hazards

Based on available data, the classification criteria are not met

Environmental hazards

Based on available data, the classification criteria are not met

Classification according to EU Directives 67/548/EEC or 1999/45/EC

R-phrases) none

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

2.2. Label elements

Signal Word **None**

Hazard Statements

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Precautionary Statements

2.3. Other hazards

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Component	CAS-No.	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008	DSD Classification - 67/548/EEC
Iron (III) Citrate	2338-05-8	EEC No. 219-045-4	0.55	-	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact Rinse thoroughly with plenty of water, also under the eyelids. Obtain medical attention if irritation persists.

Skin Contact Wash off with warm water and soap. Get medical attention if irritation develops and persists.

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Inhalation Move to fresh air. Get medical attention if symptoms occur.

Protection of First-aiders No special precautions required.

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

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

Notes to Physician Treat symptomatically

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which must not be used for safety reasons

Use extinguishing method compatible with surroundings.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

Hazardous Combustion Products

None under normal use conditions

5.3. Advice for firefighters

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As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture.

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s):

UK - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement.
IRE - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

Component Iron (III) Citrate	European Union	The United Kingdom	France	Belgium	Spain
			STEL: 2 mg/m ³ 15 min TWA: 1 mg/m ³ 8 hr		
Component Iron (III) Citrate	Italy	Germany	Portugal	The Netherlands	Finland
			TWA: 1 mg/m ³ 8 horas		
Component Iron (III) Citrate	Austria	Denmark	Switzerland	Poland	Norway
			MAK: 1 mg/m ³ 8 Stunden		TWA: 1 mg/m ³ 8 timer

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Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Derived No Effect Level (DNEL)

According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified

Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral Dermal Inhalation				

Predicted No Effect Concentration (PNEC)

According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified.

8.2. Exposure controls

Engineering Measures

None under normal use conditions..

Personal protective equipment

Eye Protection

If splashes are likely to occur, wear: Safety glasses with side-shields (European standard - EN 166)

Hand Protection

For prolonged or repeated contact use protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments (minimum requirement)
Disposable gloves	See manufacturers recommendations	-	EN 374	

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Remove gloves with care avoiding skin contamination.

Skin and body protection

Long sleeved clothing

Respiratory Protection

No protective equipment is needed under normal use conditions.

Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced..
Recommended Filter type: Particle filter.

Small scale/Laboratory use

Maintain adequate ventilation

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

Avoid dust formation.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Light orange	
Physical State	Powder.	
Odor	No information available	
Odor Threshold	No data available	
pH	7.2 - 7.6	
Melting Point/Range	No data available	
Softening Point	No data available	
Bolling Point/Range	Not applicable	
Flash Point	Not applicable	Method - No information available.
Evaporation Rate	Not applicable	Solid
Flammability (solid,gas)	No information available.	
Explosion Limits	No data available.	
Vapor Pressure	No data available	
Vapor Density	Not applicable	Solid
Specific Gravity / Density	No data available	
Bulk Density	No data available	
Water Solubility	Soluble in water	
Solubility in other solvents	No information available.	
Partition Coefficient (n-octanol/water)		
Autoignition Temperature	Not applicable	
Decomposition temperature	No data available	
Viscosity	Not applicable	Solid
Explosive Properties	No information available.	
Oxidizing Properties	No information available.	

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity	None known, based on information available.
10.2. Chemical stability	Stable under normal conditions.
10.3. Possibility of hazardous reactions	
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.
10.4. Conditions to avoid	Incompatible products, Excess heat, Avoid dust formation.
10.5. Incompatible materials	Strong oxidizing agents.
10.6. Hazardous decomposition products	None under normal use conditions

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information Product does not present an acute toxicity hazard based on known or supplied information

(a) acute toxicity;	
Oral	Not Classified
Dermal	Not Classified
Inhalation	Not Classified

Toxicology data for the components

(b) skin corrosion/irritation; Not Classified

(c) serious eye damage/irritation; Not Classified

(d) respiratory or skin sensitization;	
Respiratory	Not Classified
Skin	Not Classified

(e) germ cell mutagenicity; Not Classified

(f) carcinogenicity; Not Classified

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Not Classified

(h) STOT-single exposure; Not Classified

(i) STOT-repeated exposure; Not Classified

Target Organs None under normal use conditions.

(j) aspiration hazard; Not applicable
Solid

Symptoms / effects, both acute and delayed Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity Ecotoxicity effects	Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants
12.2. Persistence and degradability Persistence	Expected to be biodegradable Soluble in water, Persistence is unlikely, based on information available.
12.3. Bioaccumulative potential	Bioaccumulation is unlikely
12.4. Mobility in soil	The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.
12.5. Results of PBT and vPvB assessment	This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
12.6. Other adverse effects Endocrine Disruptor information	This product does not contain any known or suspected endocrine disruptors

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Persistent Organic Pollutant This product does not contain any known or suspected substance
Ozone Depletion Potential This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated Packaging Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.

European Waste Catalogue (EWC) According to the European Waste Catalogue, Waste Codes are not product specific, but application specific

Other Information Waste codes should be assigned by the user based on the application for which the product was used

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO Not regulated

14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group

ADR Not regulated

14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group

IATA Not regulated

14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories X = listed

Component	EINECS	ELINCS	NLP	TSCA	DBL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Iron (III) Citrate	219-045-4	-	-	X	X	-	X	X	-	X	-

National Regulations

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Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment
 Take note of Dir 94/33/EC on the protection of young people at work
 Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

SECTION 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
 Not applicable

Full text of H-Statements referred to under sections 2 and 3
 Not applicable

Legend

CAS - Chemical Abstracts Service
 EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory Substances List
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 ENCS - Japan Existing and New Chemical Substances
 AICS - Australian Inventory of Chemical Substances
 NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit
 ACGIH - American Conference of Industrial Hygiene
 DNEL - Derived No Effect Level
 RPE - Respiratory Protective Equipment
 LC50 - Lethal Concentration 50%
 NOEC - No Observed Effect Concentration
 PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average
 IARC - International Agency for Research on Cancer
 PNEC - Predicted No Effect Concentration
 LD50 - Lethal Dose 50%
 EC50 - Effective Concentration 50%
 POW - Partition coefficient Octanol:Water
 vPvS - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road
 IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code
 OECD - Organisation for Economic Co-operation and Development
 BCF - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association
 MARPOL - International Convention for the Prevention of Pollution from Ships
 ATE - Acute Toxicity Estimate
 VOC - Volatile Organic Compounds

Key literature references and sources for data

Suppliers safety data sheet,
 Chemadvisor - LOLI,
 Merck index,
 RTECS

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data
Health Hazards Calculation method
Environmental hazards Calculation method

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

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Revision Summary

Reason for revision Update to Format.

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

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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 Safety Data Sheet

P. M. S. I. C. U. A. P. I. O. S.

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