



Version	Revision Date:	SDS Number:	Date of last issue: 06/19/2024
4.1	03/25/2025	102000028783	Date of first issue: 03/26/2018

SECTION 1. IDENTIFICATION

Product name Product code	:	METALSTAR HEATSET 05-4875 GOLD 045726A30
Manufacturer or supplier's d	leta	ails
Company name of supplier Address		ECKART America Corporation 830 East Erie Street Painesville OH 44077
Telephone	:	866-458-7837 (440) 954-7600
Telefax	:	(440) 354-6224
e-mail adresse	:	info.eckart.america.oh@altana.com
Emergency telephone	:	CHEMTREC: 800-424-9300
		CHEMTREC: 1-703-527-3387 (International)
		NCEC:
		(contract no. ECKART29003-NCEC)
		US: +1 866 928 0789 (Toll free)
		Canada: +1 800 579 7421 (Toll Free) Mexico: +52 55 5004 8763

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)				
Acute toxicity (Oral)	:	Category 4		
Eye irritation	:	Category 2A		
GHS label elements				
Hazard pictograms	:			
Signal Word	:	Warning		
Hazard Statements	:	H302 Harmful if H319 Causes se	swallowed. erious eye irritation.	
Precautionary Statements	:	Prevention:		
		P264	Wash skin thoroughly after handling.	
		P270	Do not eat, drink or smoke when using this	







Version 4.1	Revision Date: 03/25/2025	SDS Number: 102000028783	Date of last issue: 06/19/2024 Date of first issue: 03/26/2018
		P280	product. Wear eye protection/ face protection.
		Response:	
		P301 + P312 + F	P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
		P305 + P351 + F	P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P337 + P313	If eye irritation persists: Get medical advice/ attention.
		Disposal:	
		P501	Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients which must be listed on the label:

Copper

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Copper	7440-50-8	>= 30 - < 50
Linseed oil	8001-26-1	>= 10 - < 20
Distillates (petroleum), straight-run middle	64741-44-2	>= 5 - < 10
Distillates (petroleum), hydrotreated light	64742-47-8	>= 5 - < 10
Zinc	7440-66-6	>= 1 - < 5
Castor oil, oxidized	68187-84-8	>= 1 - < 5

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	Take the victim into fresh air. Move out of dangerous area. Show this material safety data sheet to the doctor in attendance.	
If inhaled	Symptoms of poisoning may appear several hours later.If unconscious, place in recovery position and seek medical advice.	







Version 4.1	Revision Date: 03/25/2025	SDS Number: 102000028783	Date of last issue: 06/19/2024 Date of first issue: 03/26/2018
	se of skin contact se of eye contact	: Wash off immed	sist, call a physician. iately with soap and plenty of water. h eye(s) with plenty of water.
If swallowed		If eye irritation p Keep respiratory Do NOT induce	open while rinsing. ersists, consult a specialist. ract clear. vomiting.
Most important symptoms and effects, both acute and delayed		Never give anyth If symptoms per	

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Special powder against metal fire Dry sand ABC powder
Unsuitable extinguishing media	:	Water High volume water jet Carbon dioxide (CO2)
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Further information	:	Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	 Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Ensure adequate ventilation.
General advice	 The product should not be allowed to enter drains, water courses or the soil. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform







Version 4.1	Revision Date: 03/25/2025		DS Number: 2000028783	Date of last issue: 06/19/2024 Date of first issue: 03/26/2018
			respective author	ities.
Environmental precautions		:	The product shou courses or the so	ld not be allowed to enter drains, water il.
			Prevent further lea	rom entering drains. akage or spillage if safe to do so. taminates rivers and lakes or drains inform ities.
Methods and materials for containment and cleaning up		:	Use mechanical h	andling equipment.
			Do not flush with Contain spillage, a absorbent materia vermiculite) and p local / national reg Soak up with iner	and then collect with non-combustible al, (e.g. sand, earth, diatomaceous earth, lace in container for disposal according to gulations (see section 13). t absorbent material (e.g. sand, silica gel,
				rsal binder, sawdust). closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Keep away from heat and sources of ignition. No smoking.
		Normal measures for preventive fire protection.
Advice on safe handling	:	Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	Keep away from sources of ignition - No smoking. Do not store near combustible materials. Keep containers tightly closed in a cool, well-ventilated place. To maintain product quality, do not store in heat or direct sunlight. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.







Version 4.1	Revision Date: 03/25/2025	SDS Number: 102000028783	Date of last issue: 06/19/2024 Date of first issue: 03/26/2018
	nical sures/Precautions rials to avoid	the technolo : Protect from : Keep away f strongly acid	stallations / working materials must comply with gical safety standards. humidity and water. from oxidizing agents, strongly alkaline and d materials in order to avoid exothermic reactions. together with oxidizing and self-igniting products.
	er information on ge stability	: No decompo	osition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Copper	7440-50-8	TWA	1 mg/m3 (Copper)	ACGIH
		TWA (dust and mists)	1 mg/m3 (Copper)	NIOSH REL
		TWA	1 mg/m3 (Copper)	OSHA P0
		TWA	0.2 mg/m3 (Copper)	ACGIH
		TWA	0.1 mg/m3 (Copper)	OSHA P0
		TWA (Dust and mist)	1 mg/m3 (Copper)	ACGIH
		TWA (Fumes)	0.2 mg/m3 (Copper)	ACGIH
		TWA (Dust)	1 mg/m3 (Copper)	NIOSH REL
		TWA (Mist)	1 mg/m3 (Copper)	NIOSH REL
		TWA (dusts and mists)	1 mg/m3 (Copper)	OSHA Z-1
		TWA (Fumes)	0.1 mg/m3 (Copper)	OSHA Z-1
		TWA (Fumes)	0.1 mg/m3 (Copper)	OSHA P0
		TWA (Dust and mist)	1 mg/m3 (Copper)	OSHA P0
Linseed oil	8001-26-1	TWA (mist -	10 mg/m3	NIOSH REL





Version	Revision Date:	SDS Number:	Date of last issue: 06/19/2024
4.1	03/25/2025	102000028783	Date of first issue: 03/26/2018

		total)		
		TWA (mist - respirable)	5 mg/m3	NIOSH REL
Distillates (petroleum), hydrotreated light	64742-47-8	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
Zinc	7440-66-6	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (total dust)	15 mg/m3	OSHA Z-3
		TWA (respirable fraction)	5 mg/m3	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
Castor oil, oxidized	68187-84-8	TWA (mist - total)	10 mg/m3	NIOSH REL
		TWA (mist - respirable)	5 mg/m3	NIOSH REL

Personal protective equipment

Respiratory protection Hand protection	:	Use suitable breathing protection if workplace concentration requires. Equipment should conform to EN 14387
Material	:	Solvent-resistant gloves (butyl-rubber)
Remarks	:	Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The exact break through time can be obtained from the protective glove producer and this has to be observed. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the





/ersion I.1	Revision Date: 03/25/2025	SDS Number: 102000028783	Date of last issue: 06/19/2024 Date of first issue: 03/26/2018
		conditions under danger of cuts, Recommended washed after c	ke into consideration the specific local er which the product is used, such as the abrasion, and the contact time. I preventive skin protection Skin should be ontact. The suitability for a specific workplace ussed with the producers of the protective
Eye p	rotection	: Safety glasses Wear face-shie problems.	ld and protective suit for abnormal processing
Skin a	and body protection	: Choose body p	rotection according to the amount and of the dangerous substance at the work place.
Hygie	ne measures	: General indust When using do When using do	rial hygiene practice. not eat or drink.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Color Odor Odor Threshold pH Melting point/freezing point Boiling point/boiling range		liquid gold characteristic No data available substance/mixture is non-soluble (in water) No data available > 100 °C
Flash point	:	> 100 °C
Evaporation rate Flammability (solid, gas) Upper explosion limit / Upper flammability limit Lower explosion limit / Lower flammability limit Vapor pressure Relative density Density	:	No data available No data available No data available No data available No data available No data available 1.4 g/cm3
Solubility(ies) Water solubility Partition coefficient: n- octanol/water Autoignition temperature Decomposition temperature Viscosity	:	insoluble No data available No data available No data available





A member of **C ALTANA**

METALSTAR HEATSET 05-4875 GOLD

ersion 1	Revision Date: 03/25/2025	SDS Number: 102000028783	Date of last issue: 06/19/2024 Date of first issue: 03/26/2018
Vis	scosity, kinematic	: > 21 mm2/s ((40 °C)
	Volatile organic ounds (VOC) content	<u>.</u> 10.00 - 20.00) %
ECTION	10. STABILITY AND	REACTIVITY	
	nical stability bility of hazardous	: No decompo : Stable under	sition if stored and applied as directed. sition if stored and applied as directed. recommended storage conditions. sition if stored and applied as directed.
Cond	itions to avoid	: Do not allow No data avai	evaporation to dryness. lable
	rdous decomposition	-	
Thern	nal decomposition	: Carbon mono hydrocarbons	oxide, carbon dioxide and unburned s (smoke).
	nal decomposition	hydrocarbon	
ECTION Acute	11. TOXICOLOGICA	hydrocarbon	
ECTION Acute Harm	11. TOXICOLOGICA	hydrocarbon	
ECTION Acute Harm <u>Com</u>	11. TOXICOLOGICA e toxicity ful if swallowed. ponents:	hydrocarbon	
ECTION Acute Harm <u>Com</u> Copp	11. TOXICOLOGICA e toxicity ful if swallowed. ponents:	hydrocarbon:	s (smoke). The component/mixture is moderately toxic afte
ECTION Acute Harm <u>Com</u> Copp	11. TOXICOLOGICA toxicity ful if swallowed. conents: her: oral toxicity	hydrocarbons	s (smoke). The component/mixture is moderately toxic afte
ECTION Acute Harm Copp Acute Zinc:	11. TOXICOLOGICA toxicity ful if swallowed. conents: her: oral toxicity	hydrocarbons	s (smoke). The component/mixture is moderately toxic afte
ECTION Acute Harm Copp Acute Zinc: Acute	11. TOXICOLOGICA toxicity ful if swallowed. <u>conents:</u> e oral toxicity	hydrocarbons L INFORMATION C Assessment: single ingestic (Rat): > 2,000 LC50 (Rat): 5 Exposure time	s (smoke). The component/mixture is moderately toxic afte on. D mg/kg .41 mg/l
ECTION Acute Harm Copp Acute Zinc: Acute Acute	11. TOXICOLOGICA toxicity ful if swallowed. <u>ponents:</u> er: oral toxicity	hydrocarbons LINFORMATION Carbons A Assessment: Single ingestic Carbons Carbon	s (smoke). The component/mixture is moderately toxic afte on. 0 mg/kg .41 mg/l e: 4 h
ECTION Acute Harm Copp Acute Zinc: Acute Acute Skin Not cl	11. TOXICOLOGICA toxicity ful if swallowed. conents: e oral toxicity oral toxicity inhalation toxicity corrosion/irritation	hydrocarbons LINFORMATION Carbons A Assessment: Single ingestic Carbons Carbon	s (smoke). The component/mixture is moderately toxic afte on. 0 mg/kg .41 mg/l e: 4 h





METALSTAR HEATSET 05-4875 GOLD

Version 4.1	Revision Date: 03/25/2025	SDS Number: 102000028783	Date of last issue: 06/19/2024 Date of first issue: 03/26/2018
	ous eye damage/eye es serious eye irritatio		
	ponents:		
Сорр			
Resp	iratory or skin sensi	tization	
	sensitization lassified based on ava	ailable information.	
-	iratory sensitization lassified based on ava	ailable information.	
	n cell mutagenicity lassified based on ava	ailable information.	
	inogenicity lassified based on ava	ailable information.	
IARC	>		his product present at levels greater than or dentified as probable, possible or confirmed h by IARC.
OSH	A		this product present at levels greater than or n OSHA's list of regulated carcinogens.
NTP			nis product present at levels greater than or dentified as a known or anticipated carcinogen
-	oductive toxicity lassified based on ava	ailable information.	
	Γ-single exposure		
Not c	lassified based on ava	ailable information.	
	F-repeated exposure	The Land State and State	

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.





Version	Revision Date:	SDS Number:	Dat
4.1	03/25/2025	102000028783	Dat

Date of last issue: 06/19/2024 Date of first issue: 03/26/2018

Components:

Distillates (petroleum), straight-run middle: May be fatal if swallowed and enters airways.

Distillates (petroleum), hydrotreated light:

May be fatal if swallowed and enters airways.

Further information

Components:

Copper:

Remarks: No data available

Zinc:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Copper:		
M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	10
Ecotoxicology Assessment		
Acute aquatic toxicity	:	Very toxic to aquatic life.

Distillates (petroleum), straight-run middle:

Ecotoxicology Assessment

Chronic aquatic toxicity

Chronic aquatic toxicity	:	May cause long lasting harmful effects to aquatic life.
--------------------------	---	---

: Very toxic to aquatic life with long lasting effects.

Zinc:

M-Factor (Acute aquatic	:	1
toxicity)		
M-Factor (Chronic aquatic	:	1
toxicity)		





Version 4.1	Revision Date: 03/25/2025		0S Number: 2000028783	Date of last issue: 06/19/2024 Date of first issue: 03/26/2018
	oxicology Assessme	nt	Very toxic to aq	uatic life
	nic aquatic toxicity	:		uatic life with long lasting effects.
	stence and degrada t ata available	oility		
	ccumulative potentia ata available	I		
	r adverse effects ata available			
Com	ponents:			
	per: ional ecological nation	:	unprofessional	al hazard cannot be excluded in the event of handling or disposal. uatic life with long lasting effects.
	ional ecological nation	:	unprofessional	al hazard cannot be excluded in the event of handling or disposal. uatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	 In accordance with local and national regulations. Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

Domestic regulation

49 CFR





Version	Revision Date:	SDS Number:	Date of last issue: 06/19/2024
4.1	03/25/2025	102000028783	Date of first issue: 03/26/2018

Not regulated as a dangerous good

International Regulations

IATA-DGR		
UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (Copper metal powder)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous Dangerous Goods
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964
IMDG-Code		
UN number	:	UN 3082
Proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
		N.O.S. (Copper metal powder)
Class	:	9
Packing group	÷	
Labels	÷	9
EmS Code	÷	F-A, S-F
Marine pollutant	÷	ves
	•	,
Remarks	:	For single packagings <=5L / 5 kg, or combination packagings containing inner packagings <= 5L / 5 kg net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)
Copper	7440-50-8	5000
Zinc	7440-66-6	1000

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.







Version	Revision Date:	SDS Number:	Date of last issue: 06/19/2024
4.1	03/25/2025	102000028783	Date of first issue: 03/26/2018

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards	:	Acute toxicity (any route o Serious eye damage or ey		
SARA 313	:	The following components established by SARA Title	,	orting levels
		Copper	7440-50-8	>= 30 - < 50 %
		Zinc	7440-66-6	>= 1 - < 5 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

White mineral oil (petroleum)	8042-47-5	>= 5 - < 10 %
Distillates (petroleum), hydrotreated light	64742-47-8	>= 5 - < 10 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product contains the feature	ollowing toxic pollutants list	ted under the U.S. Clean Water Act Section 307
Copper	7440-50-8	31.2375 %

Zinc	7440-66-6	3.15 %

This product contains the following priority pollutants related to the U.S. Clean Water Act: Copper 7440-50-8 31.2375 %

Zinc 7440-66-6 3.15 %

US State Regulations	
----------------------	--

Massachusetts Right To Know	
Copper	7440-50-8





A member of **C ALTANA**

METALSTAR HEATSET 05-4875 GOLD

Version 4.1	Revision Date: 03/25/2025	SDS Number: 102000028783	Date of last issue: 06 Date of first issue: 0	
	Distillates (petroleu	m), hydrotreated light		64742-47-8
	Zinc			7440-66-6
Penns	ylvania Right To Kno	w		
	Copper			7440-50-8
	Distillates (petroleu	m), steam-cracked, pc	lymd.	68131-77-1
	Linseed oil			8001-26-1
	Distillates (petroleu	m), straight-run middle)	64741-44-2
		toff oder gefährliches (Gemisch gemäß dem	Not Assigned
		rten System (GHS). m), hydrotreated light		64742-47-8
	Zinc			7440-66-6
	Soybean oil			8001-22-7
	Castor oil, oxidized			68187-84-8
	Aluminum			7429-90-5

California Prop. 65



WARNING: This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



WARNING: This product can expose you to chemicals including Distillates (petroleum), hydrotreated light, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Lis	t of Hazardous Substances	
Сор	per	7440-50-8
Dist	illates (petroleum), hydrotreated light	64742-47-8
Zinc		7440-66-6

California Permissible Exposure Limits for Chemical Contaminants

Copper	7440-50-8





ersion .1	Revision Date: 03/25/2025	SDS Number: 102000028783	Date of last issue: 06/19/2024 Date of first issue: 03/26/2018
	Linseed oil		8001-26-1
	Distillates (petro	leum), hydrotreated ligl	nt 64742-47-8
	Zinc		7440-66-6
The i	ngredients of this pr	oduct are reported in	the following inventories:
DSL TSCA	A	•	of this product are on the Canadian DSL listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations	
----------------------------------	--

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA PO	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-3 / TWA	:	8-hour time weighted average
AIIC - Australian Inventory	of Ir	ndustrial Chemicals: ASTM - American Society for the Testing

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP



Version	Revision Date:	SDS Number:	Date of last issue: 06/19/2024
4.1	03/25/2025	102000028783	Date of first issue: 03/26/2018

- Good Laboratory Practice: HMIS - Hazardous Materials Identification System: 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; 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**

Revision Date : 03/25/2025

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

US / Z8