SAFETY DATA SHEETS

This SDS packet was issued with item: 072068856

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

072035731 072035814 072058899 072068849 072068864 072068872 072068880 072068898 072068906 072068914 072068922 072069235 072069243 072084051 073264744

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

072035897

MS349659

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,'GC,

SECTION 1 - SOURCE/IDENTITY/USE INFORMATION

MANUFACTURER

GC AMERICA INC. 3737 West 127th St. Alsip, Illinois, 60803 Telephone: 708-597-0900 Hours: Mon.- Fri. 8:00 am. - 5:00 pm. C.S.T. Transportation Emergency Telephone No. 800-424-9300

COMMON NAME: NATURE-CRYL MC

CHEMICAL NAME: N.A.

PRODUCT USE: Construction of dental prosthesis - liquid component.

The following information is provided with regard to the toxicity and hazards of the pure components present in this portion of the unmixed powder/liquid system.

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	C.A.S.	EXPOSURE LIMITS	LD50/LC50	%
Methyl methacrylate	80-62-6	TWA=100ppm	LD50=7.9g/kg	90-95
		(ACGIH)	(oral rat)	
			LC50=3750 ppm/4hr	

SECTION 3 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT: 99°C	SPECIFIC GRAVITY (H2O = 1): 0.9
VAPOR PRESSURE: 29mm @20°C	MELTING POINT: -48°C
VAPOR DENSITY (AIR=1.0): 3.46	EVAPORATION RATE(BUTYL ACETATE=1): Equal
SOLUBILITY IN WATER: 1.7%	ODOR THRESHOLD: <1ppm Methyl methacrylate
COEFFICIENT OF OIL/WATER DISTRIBUTION: N.H	APPEARANCE AND ODOR: Clear liquid, unpleasant odor

SECTION 4 - FIRE AND EXPLOSION DATA

FLASH POINT: 12.8°C/55°F (Open cup)

FLAMMABLE LIMITS: LEL = 1.7 UEL=8.2

EXTINGUISHING MEDIA: Alcohol foam, dry chemical, carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES: Wear self contained breathing apparatus with full protective equipment. **UNUSUAL FIRE AND EXPLOSION HAZARDS:** When heated above the flashpoint: emits vapors, which when mixed with air, can burn or be explosive. Fine mists on sprays may be flammable at temperatures below the flash point. Sealed containers exposed to

elevated temperatures may rupture explosively due to polymerization. Vapors are heavier than air and may travel to ignition source. **HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, carbon monoxide, smoke.

SECTION 5 - REACTIVITY DATA

STABILITY: POLYMERIZATION: Stable _____ Will Not Occur ____

Uns	table		
Will	Occu	r []	<

CONDITIONS TO AVOID: Heat and ignition sources.

INCOMPATIBILITY (Materials to Avoid): Reducing and oxidizing agents. Material has strong solvent properties and can soften paint or rubber.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known



MS349659 NATURE-CRYL MC - LIQUID

SECTION 6 - HEALTH HAZARD DATA and FIRST AID INFORMATION

	YES	NO	NE	NA	NTP	IARC	OSHA	OTHER
MUTAGENIC AFFECTS		Х						
TERATOGENIC AFFECTS		Х						
REPRODUCTIVE TOXIN		Х						
CARCINOGENICITY		Х						
SENSITIZER	Х							

 ROUTES OF ENTRY:
 Inhalation
 Skin
 Ingestion
 Ingestion

HEALTH HAZARD (Acute and Chronic): Inhalation may cause nose and throat irritation. May cause nervous system depression.

Reports have associated repeated and prolonged overexposure to brain damage and nervous system damage. May cause irritation or burning of eyes, skin, and mucous membranes. Repeated exposure may cause skin burns and allergic reactions. May cause abnormal liver and kidney function.

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Progressive steps of inhalation overexposure: headache, dizziness, nausea, staggering gait, confusion, unconsciousness.

CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N.A.

EMERGENCY FIRST AID PROCEDURES:

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

EYE CONTACT: Immediately flush eyes with water. Seek medical attention.

SKIN CONTACT: Wash affected area with soap and water. Wash clothes prior to reuse.

INGESTION: Do not induce vomiting. Give one or two glasses of water and refer to medical attention.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

IN CASE OF RELEASE OR SPILL: Eliminate source of ignition. Wear skin, eye, and respiratory protection. Contain spill and keep out of sewers. Use absorbent to soak up liquid. Use non-sparking equipment and shovel into waste container.

WASTE DISPOSAL METHOD: Material is a hazardous waste, No. U162. Dispose of waste in facility permitted for hazardous waste in accordance with local, state and federal regulations.

STORAGE, HANDLING, AND SPECIAL PRECAUTIONS: Keep away from heat, sparks, flame, direct sunlight and elevated temperatures.

SECTION 8 - CONTROL MEASURES

RESPIRATORY PROTECTION: Reduce exposure in accordance with safe hygiene practice. If exposure limits are exceeded, use an MSHA-NIOSH approved respirator for organic vapors.

VENTILATION: Local Exhaust: X Mechanical: N.A.

Special: N.A.

Other: N.A.

PROTECTIVE GLOVES: Disposable Vinyl Gloves

EYE PROTECTION: Chemical eye goggles and full face protection if necessary.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Eye wash station

WORK/HYGIENIC PRACTICE: Follow routine safe hygiene practices

SECTION 9 - PREPARATION INFORMATION

This data is supplied to comply with OSHA Hazard Communication Standard 29 CFR 1910,1200 and W.H.M.I.S. CPR

DATE: 01 March 2006 REVIEWED: 28 February 2012

N.A. = NOT APPLICABLE N.E. = NOT ESTABLISHED

The information herein is given in good faith but no warranty expressed or implied is made.

		NFPA		
FIRE – 4	TOXICITY – 2	REACTIVITY – 3	SPECIAL – P	



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1 Identification

- · Product identifier
- Trade name: NATURE-CRYL MC (Liquid)

• Relevant identified uses of the substance or mixture and uses advised against Dental material

The product is intended for professional use.

To avoid risks for humans and environment obtain instructions.

- · Application of the substance / the mixture Manufacture of dental prothesis
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

GC America Inc. 3737 W. 127th Street Alsip, IL 60803 USA

sds@gcamerica.com

· Information department: Regulatory Affairs

Emergency telephone number:

During normal opening times (Mon.-Fri. 8:00 AM-5:00 PM CST): +1 (708) 597-0900 Transportation (CHEMTREC®) Emergency Telephone No. +1 (800) 424-9300

2 Hazard(s) identification

· Classification of the substance or mixture

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

- Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Acute Tox. 4 H302 Harmful if swallowed.
- Acute Tox. 4 H312 Harmful in contact with skin.
- Acute Tox. 4 H332 Harmful if inhaled.
- Skin Irrit. 2 H315 Causes skin irritation.
- Skin Sens. 1 H317 May cause an allergic skin reaction.
- STOT SE 3 H335 May cause respiratory irritation.

Eye Irrit. 2B H320 Causes eye irritation.

· Additional information:

The information provided is in regards to the toxicity and hazard rating(s) of the individual component(s) in the formulation. The associated risk(s) depends on the route(s) of exposure. The hazard rating system is based entirely on the existence of the risk(s) and does not take into account the likelihood of reduced risk(s) through proper usage and handling.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

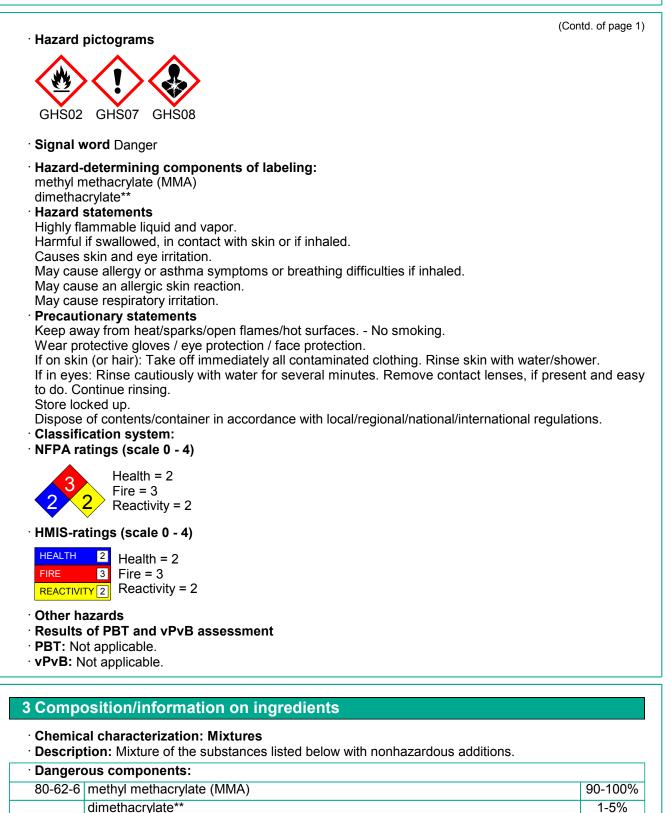
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activator**

(Contd. of page 2) < 0.5%

Additional information:

If a substance is marked with **, then substance is a trade secret. This is allowed under OSHA's Hazard Communication Standard (HCS) as a trade secret and under GHS as Confidential Business Information (CBI).

4 First-aid measures

- · Description of first aid measures
- General information:

Immediately remove any clothing soiled by the product. If symptoms persist consult doctor.

• After inhalation:

Supply fresh air or oxygen; call for doctor. In case of unconsciousness place patient stably in side position for transportation. Do not use mouth to mouth or mouth to nose resuscitation.

- After skin contact: Immediately wash with water and soap and rinse thoroughly. Seek medical treatment.
- After eye contact: Protect unharmed eye.
 Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Do not induce vomiting; immediately call for medical help. Rinse out mouth and then drink plenty of water.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed Allergic reactions

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents: Water
- Special hazards arising from the substance or mixture In case of fire, the following can be released: Carbon monoxide and carbon dioxide
- · Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- Additional information Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Remove persons from danger area. Keep away from ignition sources Avoid contact with the eyes and skin. Wear protective clothing.

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Trade name: NATURE-CRYL MC (Liquid)

(Contd. of page 3) · Environmental precautions: Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground/soil. Methods and material for containment and cleaning up: Ensure adequate ventilation. Absorb liquid components with liquid-binding material. Dispose of the collected material according to regulations. **Reference to other sections** See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information. 7 Handling and storage · Handling: · Precautions for safe handling Observe instructions for use. Ensure good ventilation/exhaustion at the workplace. Do not inhale dust / smoke / mist. Prevent formation of aerosols. Avoid contact with the eyes and skin. · Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Do not spray on a naked flame or any incandescent material. • Storage: · Requirements to be met by storerooms and receptacles: Store in a cool location. Store only in unopened original receptacles. · Information about storage in one common storage facility: Store away from foodstuffs. · Further information about storage conditions: Observe instructions for use / storage. Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles. Protect from heat and direct sunlight. Store in a cool place. • Specific end use(s) No further relevant information available. 8 Exposure controls/personal protection • Additional information about design of technical systems: No further data; see item 7.

· Control parameters

A	11 14 1 41 4		at the workplace:
Componente with	limit values that re	autiro monitorina	at the workelace

80-62-6 methyl methacrylate (MMA)

- PEL Long-term value: 410 mg/m³, 100 ppm
- REL Long-term value: 410 mg/m³, 100 ppm
- TLV Short-term value: 410 mg/m³, 100 ppm Long-term value: 205 mg/m³, 50 ppm

(SEN) NIC-DSEN

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Trade name: NATURE-CRYL MC (Liquid)

· E	Exposure controls
·F	Personal protective equipment:
• (General protective and hygienic measures:
	The usual precautionary measures for handling chemicals should be followed.
	Avoid contact with the eyes and skin.
	Wash hands before breaks and at the end of work.
	Keep away from foodstuffs, beverages and feed.
	Immediately remove all soiled and contaminated clothing.
	Breathing equipment: Suitable respiratory protective device recommended.
	Protection of hands: Protective gloves
	Material of gloves
0	The selection of the suitable gloves does not only depend on the material, but also on further marks quality and varies from manufacturer to manufacturer. As the product is a preparation of sever substances, the resistance of the glove material can not be calculated in advance and has therefore be checked prior to the application.
	Penetration time of glove material
	The exact break through time has to be found out by the manufacturer of the protective gloves and h to be observed.
٠E	Eye protection: Safety glasses

 Information on basic physical and on General Information 	chemical properties
 Appearance: Form: Color: Odor: Odor threshold: 	Liquid Colorless Methacrylic Not determined.
· pH-value:	Not determined.
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	Undetermined. 99 °C (210 °F)
· Flash point:	12 °C (54 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	Undetermined.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Heating may cause an explosion. Product is not explosive. However, formation of explosive air/ vapor mixtures are possible.
· Explosion limits:	
Lower:	2.1 Vol %
Upper:	12.5 Vol %

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		(Contd. of page
· Vapor pressure:	Not determined.	
· Density at 20 °C (68 °F):	0.9 g/cm³ (7.511 lbs/gal)	
Relative density	Not determined.	
· Vapour density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Insoluble.	
· Partition coefficient (n-octanol/wa	ater): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	0.0 %	
VOC content:	5.0 %	
• Other information	No further relevant information available.	

10 Stability and reactivity

· **Reactivity** Danger of polymerization.

- · Chemical stability Stable at ambient temperature.
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Spontaneous polymerization can be caused in unstabilized product e.g. by ambient heat. Danger of receptacles bursting because of high vapor pressure if heated. Exothermic polymerization.
- · Conditions to avoid Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- Incompatible materials: Reacts with oxidizing agents. Reacts with reducing agents. Reacts with peroxides and other radical forming substances. Reacts with amines. Reacts with heavy metals.
 Hazardous decomposition products: October metals.
- Carbon monoxide Carbon dioxide

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification: No further relevant information available.
- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.

Sensitization:

Sensitization possible through inhalation.

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Trade name: NATURE-CRYL MC (Liquid)

(Contd. of page 6) Sensitization possible through skin contact. Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparations: Irritant Carcinogenic categories · IARC (International Agency for Research on Cancer) methyl methacrylate (MMA) 3 NTP (National Toxicology Program) None of the ingredients is listed. · OSHA-Ca (Occupational Safety & Health Administration) None of the ingredients is listed. · Carcinogenic categories' legend: IARC Group 1: The agent is carcinogenic to humans. IARC Group 2A: The agent is probably carcinogenic to humans. IARC Group 2B: The agent is possibly carcinogenic to humans. IARC Group 3: The agent is not classifiable as to its carcinogenicity to humans. IARC Group 4: The agent is probably not carcinogenic to humans.

NTP K: Known to be human carcinogen.

NTP R: Reasonably anticipated to be human carcinogen.

12 Ecological information

· Toxicity

· Aquatic toxicity: No further relevant information available.

- Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not known to be hazardous to water.
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

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Trade name: NATURE-CRYL MC (Liquid)

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UN-Number	
DOT, ADR, IMDG, IATA	UN1247
UN proper shipping name	
DOT	Methyl methacrylate monomer, stabilized solution
	1247 Methyl methacrylate monomer, stabilized solution
IMDG, IATA	METHYL METHACRYLATE MONOMER, STABILIZI solution
Transport hazard class(es)	
DOT	
3	
Class	3 Flammable liquids
Label	3
ADR	
3	
	2 (F1) Flowmakle liquide
Class Label	3 (F1) Flammable liquids 3
IMDG, IATA	-
	2 Elemental liquida
Class Label	3 Flammable liquids 3
Packing group DOT, ADR, IMDG, IATA	11
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids
Danger code (Kemler):	339
EMS Number:	F-E,S-D
Transport in bulk according to Annex	
MARPOL73/78 and the IBC Code	Not applicable.

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	(Contd. of page
· Transport/Additional information:	
· ADR	
 Excepted quantities (EQ) 	Code: E2
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
·IMDG	
· Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2
,	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN1247, Methyl methacrylate monomer, stabilize solution, 3, II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
 SARA (Superfund Amendments and Reauthorization Act)

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

methyl methacrylate (MMA)

• TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

methyl methacrylate (MMA)

E, NL

A4

• TLV (Threshold Limit Value established by ACGIH)

methyl methacrylate (MMA)

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



· Signal word Danger

- **Hazard-determining components of labeling:** methyl methacrylate (MMA) dimethacrylate**
- Hazard statements
 Highly flammable liquid and vapor.

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Trade name: NATURE-CRYL MC (Liquid)

(Contd. of page 9) Harmful if swallowed, in contact with skin or if inhaled. Causes skin and eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation. **Precautionary statements** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear protective gloves / eye protection / face protection. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. · Chemical safety assessment: A Chemical Safety Assessment has not been carried out. 16 Other information Department issuing SDS: Regulatory Affairs · Contact: **Regulatory Affairs** Telephone No. +1 (708) 597-0900 sds@gcamerica.com Date of preparation / last revision 04/20/2015 / - Abbreviations and acronyms: GHS: Globally Harmonized System of Classification and Labelling of Chemicals HCS: Hazard Communication Standard (USA) MSDS: Material Safety Data Sheet SDS: Safety Data Sheet ECHA: European Chemicals Agency OSHA: Occupational Safety and Health Administration (USA) ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids, Hazard Category 2 Acute Tox. 4: Acute toxicity, Hazard Category 4 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 Sources Manufacturers' MSDSs/SDSs OSHA (https://www.osha.gov/dts/chemicalsampling/toc/chmcas.html) TOXNET (http://toxnet.nlm.nih.gov/) ECHA (http://echa.europa.eu/) EnviChem (www.echemportal.org) (Contd. on page 11)

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· Notes:

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** Data compared to the previous version altered. This version replaces all previous versions.

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