

Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE **COMPANY/UNDERTAKING**

1.1 Product identifier

Product name : SOLID MEGA

Product code 107823E

Use of the Machine Warewashing Detergent

Substance/Mixture

Substance type: : Mixture

For professional users only.

Product dilution information : No dilution information provided.

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

Identified uses : Dishwash and rinse aid product; Automatic process

Recommended restrictions

on use

: Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Ecolab Ltd. Company

PO Box 11; Winnington Avenue

Northwich, Cheshire, United Kingdom CW8 4DX

+ 44 (0)1606 74488 ccs@ecolab.com

1.4 Emergency telephone number

Emergency telephone : +441618841235

number +32-(0)3-575-5555 Trans-European

telephone number

Poison Information Centre : For medical professionals only: 0344 892 0111

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Version 2.0

Section: 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Category 1 H314 Serious eye damage, Category 1 H318 Chronic aquatic toxicity, Category 3 H412

2.2 Label elements

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Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard : EUH031 Contact with acids liberates toxic gas.

Statements

Precautionary Statements : **Prevention:**

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face

protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately

all contaminated clothing. Rinse skin with water

or shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water

for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

Hazardous components which must be listed on the label: sodium hydroxide

2.3 Other hazards

Mixing this product with acid or ammonia releases chlorine gas.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. REACH No.	Classification REGULATION (EC) No 1272/2008	Concentration : [%]
sodium hydroxide	1310-73-2 215-185-5 01-2119457892-27	Skin corrosion Category 1A; H314 Corrosive to metals Category 1; H290 Skin corrosion Category 1A H314 >= 5 % Skin corrosion Category 1B H314 2 - < 5 % Skin irritation Category 2 H315 0.5 - < 2 % Eye irritation Category 2 H319 0.5 - < 2 %	>= 30 - < 50
Sodium Carbonate	497-19-8 207-838-8 01-2119485498-19	Eye irritation Category 2; H319	>= 10 - < 20

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disodium metasilicate	6834-92-0 229-912-9 01-2119449811-37	Skin corrosion Category 1B; H314 Specific target organ toxicity - single exposure Category 3; H335	>= 2.5 - < 3
Sodium dichloro-s- triazinetrione dihydrate	51580-86-0 220-767-7 01-2119489371-33	Acute toxicity Category 4; H302 Eye irritation Category 2; H319 Specific target organ toxicity - single exposure Category 3; H335 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410 Specific target organ toxicity - single exposure Category 3 H335 >= 10 % EUH031 >= 10 % Specific target organ toxicity - single exposure Category 3 H335 >= 10 % EUH031 >= 10 %	>= 1 - < 2.5

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section: 4. FIRST AID MEASURES

4.1 Description of first aid measures

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for

at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.

Wash clothing before reuse. Thoroughly clean shoes before

reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give

anything by mouth to an unconscious person. If conscious, give 2

glasses of water. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention

if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

Section: 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing

media

: None known.

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5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Exposure to decomposition products may be a hazard to health.

Hazardous combustion

products

: Depending on combustion properties, decomposition products

may include following materials:

Carbon oxides

nitrogen oxides (NOx) Sulphur oxides

metal oxides

5.3 Advice for firefighters

for firefighters

Special protective equipment : Use personal protective equipment.

Further information : Fire residues and contaminated fire extinguishing water must be

disposed of in accordance with local regulations. In the event of

fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency

personnel

: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the

exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to

protective measures listed in sections 7 and 8.

Advice for emergency

responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable

materials.

6.2 Environmental precautions

: Do not allow contact with soil, surface or ground water. Environmental precautions

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections

See Section 1 for emergency contact information.

For personal protection see section 8.

See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Do not ingest. Do not get in eyes, on skin, or on clothing. Use only Advice on safe handling

with adequate ventilation. Wash hands thoroughly after handling. Do not breathe dust. Mixing this product with acid or ammonia releases chlorine gas. In case of mechanical malfunction, or if in

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contact with unknown dilution of product, wear full Personal

Protective Equipment (PPE).

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before re-use.

Wash face, hands and any exposed skin thoroughly after

handling. Provide suitable facilities for quick drenching or flushing

of the eyes and body in case of contact or splash hazard.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature : 0 °C to 40 °C

7.3 Specific end uses

Specific use(s) : Dishwash and rinse aid product; Automatic process

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
sodium hydroxide	1310-73-2	STEL	2 mg/m3	UKCOSSTD

DNEL

sodium hydroxide	Ξ	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m3 End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m3
Sodium Carbonate	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 10 mg/m3 End Use: Consumers Exposure routes: Inhalation Potential health effects: Acute local effects Value: 10 mg/m3
disodium metasilicate	:	End Use: Workers Exposure routes: Dermal Potential health effects: Long-term systemic effects Value: 1.49 mg/kg

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End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 6.22 mg/m3

PNEC

disodium metasilicate : Fresh water

Value: 7.5 mg/l

Marine water Value: 1 mg/l

Intermittent use/release

Value: 7.5 mg/l

Sewage treatment plant Value: 1000 mg/l

8.2 Exposure controls

Appropriate engineering controls

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations

below occupational exposure standards.

Individual protection measures

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before re-use.

Wash face, hands and any exposed skin thoroughly after

handling. Provide suitable facilities for quick drenching or flushing

of the eyes and body in case of contact or splash hazard.

Eye/face protection (EN 166) : Safety goggles

Face-shield

Hand protection (EN 374) : Recommended preventive skin protection

Gloves Nitrile rubber butyl-rubber

Breakthrough time: 1 – 4 hours

Minimum thickness for butyl-rubber 0.7 mm for nitrile rubber 0.4

mm or equivalent (please refer to the gloves

manufacturer/distributor for advise).

Gloves should be discarded and replaced if there is any indication

of degradation or chemical breakthrough.

Skin and body protection

(EN 14605)

: Personal protective equipment comprising: suitable protective

gloves, safety goggles and protective clothing including

appropriate safety shoes

Respiratory protection (EN

143, 14387)

: When respiratory risks cannot be avoided or sufficiently limited by

technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements

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(89/656/EEC, (EU) 2016/425), or equivalent, with filter type:B-P

Environmental exposure controls

General advice : Consider the provision of containment around storage vessels.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance : solid

Colour : white

Odour : odourless

pH : 12.4 - 12.6, 1 % Flash point : Not applicable.

Odour Threshold : Not applicable and/or not determined for the mixture

Melting point/freezing point : Not applicable and/or not determined for the mixture

Initial boiling point and : Not applicable and/or not determined for the mixture

boiling range

Evaporation rate : Not applicable and/or not determined for the mixture Flammability (solid, gas) : Not applicable and/or not determined for the mixture Upper explosion limit : Not applicable and/or not determined for the mixture Lower explosion limit : Not applicable and/or not determined for the mixture Vapour pressure : Not applicable and/or not determined for the mixture Relative vapour density : Not applicable and/or not determined for the mixture

Relative density : 1.6 - 1.65 Water solubility : soluble

Solubility in other solvents : Not applicable and/or not determined for the mixture Partition coefficient: n- : Not applicable and/or not determined for the mixture

octanol/water

Auto-ignition temperature : Not applicable and/or not determined for the mixture

Thermal decomposition : Not applicable and/or not determined for the mixture

Viscosity, kinematic : Not applicable and/or not determined for the mixture

Explosive properties : Not applicable and/or not determined for the mixture

Oxidizing properties : Yes

9.2 Other information

Not applicable and/or not determined for the mixture

Section: 10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

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Stable under normal conditions.

10.3 Possibility of hazardous reactions

Mixing this product with acid or ammonia releases chlorine gas.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Acids

10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides metal oxides

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information on likely routes of : Eye contact, Skin contact

exposure

Product

Acute oral toxicity : Acute toxicity estimate : > 2,000 mg/kg

Acute inhalation toxicity : There is no data available for this product.

Acute dermal toxicity : There is no data available for this product.

Skin corrosion/irritation : There is no data available for this product.

Serious eye damage/eye

irritation

: There is no data available for this product.

Respiratory or skin

sensitization

: There is no data available for this product.

Carcinogenicity : There is no data available for this product.

Reproductive effects : There is no data available for this product.

Germ cell mutagenicity : There is no data available for this product.

Teratogenicity : There is no data available for this product.

STOT - single exposure : There is no data available for this product.

STOT - repeated exposure : There is no data available for this product.

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Aspiration toxicity : There is no data available for this product.

Components

Acute oral toxicity : Sodium Carbonate LD50 rat: 2,800 mg/kg

disodium metasilicate LD50 rat: 500 mg/kg

Sodium dichloro-s-triazinetrione dihydrate LD50 rat: 1,823 mg/kg

Components

Acute dermal toxicity : Sodium dichloro-s-triazinetrione dihydrate LD50 rat: > 5,000

mg/kg

Potential Health Effects

Eyes : Causes serious eye damage.

Skin : Causes severe skin burns.

Ingestion : Causes digestive tract burns.

Inhalation : May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

Section: 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Environmental Effects : Harmful to aquatic life with long lasting effects.

Product

Toxicity to fish : no data available

Toxicity to daphnia and other : no data available

aquatic invertebrates

Toxicity to algae : no data available

Components

Toxicity to fish : Sodium Carbonate96 h LC50 Lepomis macrochirus (Bluegill

sunfish): 300 mg/l

disodium metasilicate96 h LC50 Fish: 210 mg/l

Sodium dichloro-s-triazinetrione dihydrate96 h LC50 Oncorhynchus mykiss (rainbow trout): 0.24 mg/l

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Components

aquatic invertebrates

Toxicity to daphnia and other : sodium hydroxide48 h EC50 Daphnia magna (Water flea): 40 mg/l

Sodium Carbonate 48 h EC50 Ceriodaphnia (water flea): 213.5

mg/l

Sodium dichloro-s-triazinetrione dihydrate48 h EC50 Daphnia

magna (Water flea): 0.196 mg/l

Components

: Sodium dichloro-s-triazinetrione dihydrate72 h EC50 Skeletonema Toxicity to algae

costatum (marine diatom): > 100 mg/l

12.2 Persistence and degradability

Product

Biodegradability : The surfactants contained in the product are biodegradable

according to the requirements of the detergent regulation

648/2004/EC

Components

Biodegradability : sodium hydroxideResult: Not applicable - inorganic

Sodium CarbonateResult: Not applicable - inorganic

disodium metasilicateResult: Not applicable - inorganic

Sodium dichloro-s-triazinetrione dihydrateResult: Poorly

biodegradable

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product

: This substance/mixture contains no components considered to be Assessment

either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or

higher.

12.6 Other adverse effects

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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13.1 Waste treatment methods

Product : Do not contaminate storm water drains, natural waterways or soil

with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations

Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Dispose of as unused product. Empty containers should be taken

to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local,

state, and federal regulations.

Guidance for Waste Code

selection

: Inorganic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in

compliance with applicable European (EU Directive 2008/98/EC)

and local regulations.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

14.1 UN number : 1823

14.2 UN proper shipping : SODIUM HYDROXIDE, SOLID

name

14.3 Transport hazard : 8

class(es)

14.4 Packing group : II14.5 Environmental hazards : No14.6 Special precautions for : None

user

Air transport (IATA)

14.1 UN number : 1823

14.2 UN proper shipping : Sodium hydroxide, solid, mixture

name

14.3 Transport hazard : 8

class(es)

14.4 Packing group : II14.5 Environmental hazards : No14.6 Special precautions for : None

user

Sea transport (IMDG/IMO)

14.1 UN number : 1823

14.2 UN proper shipping : SODIUM HYDROXIDE, SOLID

name

14.3 Transport hazard : 8

class(es)

14.4 Packing group : II 14.5 Environmental hazards : No

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14.6 Special precautions for : None

user

14.7 Transport in bulk according to Annex II of

MARPOL 73/78 and the IBC

Code

Section: 15. REGULATORY INFORMATION

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

according to Detergents 15 % or over but less than 30 %: Phosphates

: Not applicable.

Regulation EC 648/2004 less than 5 %: Anionic surfactants, Non-ionic surfactants,

Chlorine-based bleaching agents, Polycarboxylates

Seveso III: Directive

2012/18/EU of the European Parliament and of the Council on the control of majoraccident hazards involving dangerous substances.

: Not applicable.

Candidate List of Substances : Not applicable.

of Very High Concern for

Authorisation

National Regulations

Take note of Dir 94/33/EC on the protection of young people at work.

Other regulations : The Chemicals (Hazard Information and Packaging for Supply)

Regulations.

The Control of Substances Hazardous to Health Regulations.

Health and Safety at Work Act.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out on the product.

Section: 16. OTHER INFORMATION

Procedure used to derive the classification according to REGULATION (EC) No 1272/2008

Classification	Justification
Skin corrosion 1, H314	Based on product data or assessment
Serious eye damage 1, H318	Based on product data or assessment
Chronic aquatic toxicity 3, H412	Calculation method

Full text of H-Statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European 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; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN -United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in 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 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.

Annex: Exposure Scenarios

Exposure Scenario: Dishwash and rinse aid product; Automatic process

Life Cycle Stage : Widespread use by professional workers

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: PC35 Washing and cleaning products (including solvent based Product category

products)

Contributing scenario controlling environmental exposure for:

Environmental release

category

ERC8a

Wide dispersive indoor use of processing aids in open

systems

Daily amount per site : 7.5 kg

Type of Sewage Treatment

Plant

Municipal sewage treatment plant

Contributing scenario controlling worker exposure for:

PROC8a Process category Transfer of substance or preparation (charging/

discharging) from/ to vessels/ large containers at non-

1

dedicated facilities

Exposure duration 60 min

Operational conditions and

risk management measures

Indoor

Local Exhaust Ventilation is not required

General ventilation Ventilation rate per hour

Skin Protection see section 8 **Respiratory Protection** see section 8

Contributing scenario controlling worker exposure for:

PROC3 Use in closed batch process (synthesis or formulation) Process category

Exposure duration 480 min

Operational conditions and

risk management measures

: Indoor

Local Exhaust Ventilation is not required

General ventilation Ventilation rate per hour 1

Skin Protection see section 8 **Respiratory Protection** see section 8

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