GE Healthcare

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - Europe

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

1.1 Product identifier

Product name Oligosynt™ 2'-OMe RNA G 30, 10 x 30 µmole

Catalogue Number 28-9829-86

Product description Not available. **Product type** Liquid. Other means of identification Not available.

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

Identified uses

Use in laboratories

1.3 Details of the supplier of the safety data sheet

Supplier GE Healthcare UK Ltd Hours of operation Amersham Place 08.30 - 17.00

Little Chalfont

Buckinghamshire HP7 9NA

England

+44 0870 606 1921

Person who prepared the MSDS: msdslifesciences@ge.com

1.4 Emergency telephone number

+49 0761 4543 0 GE Healthcare Europe GmbH Europe

Munzinger Strasse 5 D-79111 Freiburg Germany / Deutschland

National advisory body/Poison Centre

Europe http://www.eapcct.org -> Go to: Links

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Irrit. 2, H319

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity Not applicable.

Ingredients of unknown Not applicable.

ecotoxicity

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.



Article Number Page: 1/11

28982986 Validation date 21 November 2014

Classification F; R11

Xn; R20/21/22

Xi; R36

Physical/chemical hazards Highly flammable.

Human health hazards Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes.

See Section 16 for the full text of the R phrases or H statements declared above. See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms





Signal word Danger

Hazard statements Highly flammable liquid and vapour.

Harmful if swallowed or in contact with skin.

Causes serious eye irritation.

Precautionary statements

Prevention Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from

heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical,

ventilating, lighting and all material-handling equipment.

Response IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or

shower.

Storage Keep cool.

Disposal Dispose of contents and container in accordance with all local, regional, national and international

regulations.

Hazardous ingredients acetonitrile
Supplemental label elements Not applicable.

Annex XVII - Restrictions on the Not applicable.

manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Special packaging requirements

Containers to be fitted with child-resistant fastenings

Not applicable.

Tactile warning of danger Not applicable.

2.3 Other hazards

Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients

Substance/mixture Mixture

			Classification		
Product/ingredient name	Identifiers	%	67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	Туре
acetonitrile	REACH #: 01-2119471307-38 EC: 200-835-2 CAS: 75-05-8 Index: 608-001-00-3	70 - 85	F; R11 Xn; R20/21/22 Xi; R36	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 4, H332 Eye Irrit. 2, H319	[1] [2]
			See Section 16 for the full text of the R-phrases declared above.	See Section 16 for the full text of the H statements declared above.	



Article Number

28982986

Validation date 21 November 2014



Page: 2/11

Oligosynt™ 2'-OMe RNA G 30, 10 x 30 µmole

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check

for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical

attention

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing,

if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under

medical surveillance for 48 hours.

Skin contact Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash

contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly

before reuse.

Ingestion Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest

in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention

immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. It may be

dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated

clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact Causes serious eye irritation.

Inhalation Exposure to decomposition products may cause a health hazard. Serious effects may be delayed

following exposure.

Skin contact Harmful in contact with skin.

Ingestion Harmful if swallowed. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact Adverse symptoms may include the following:

pain or irritation watering.

redness

Inhalation No specific data. Skin contact No specific data. Ingestion No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed

person may need to be kept under medical surveillance for 48 hours.

Specific treatments No specific treatment.



Article Number

Validation date 21 November 2014

Page: 3/11

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use dry chemical, CO2, water spray (fog) or foam.

Unsuitable extinguishing media Do not use water jet.

5.2 Special hazards arising from the substance or mixture

mixture

Hazards from the substance or Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or

explosion hazard.

Hazardous combustion

products

Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides

5.3 Advice for firefighters

Special precautions for firefiahters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment

for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-

proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of

via a licensed waste disposal contractor.

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-Large spill

> proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose

the same hazard as the spilt product.

6.4 Reference to other

sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.



Article Number

Validation date 21 November 2014

Page: 4/11

hygiene

Advice on general occupational Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 4 to 30°C (39.2 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Seveso II Directive - Reporting thresholds (in tonnes)

Danger criteria

Category **Notification and MAPP** Safety report threshold threshold P5c: Flammable liquids 2 and 3 not falling under P5a or P5b 5000 50000 50000 C7b: Highly flammable (R11) 5000

7.3 Specific end use(s)

Recommendations Chemical synthesis. Laboratory chemicals Research and Development

Industrial sector specific

solutions

Not available

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
acetonitrile	EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 70 mg/m³ 8 hours. TWA: 40 ppm 8 hours.

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DELs available.

PNECs

No PECs available.

8.2 Exposure controls

Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, Hygiene measures

smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection



Article Number

Validation date 21 November 2014

Page: 5/11

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn at all

times when handling chemical products if a risk assessment indicates this is necessary.

Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures,

consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection Personal protective equipment for the body should be selected based on the task being performed

and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements

and test methods.

Other skin protection Appropriate footwear and any additional skin protection measures should be selected based on the

task being performed and the risks involved and should be approved by a specialist before

handling this product.

assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected

respirator.

Environmental exposure

controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions

to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state Liquid. [(White suspension in closed column.)]

Colour solution: Colourless. / Suspension: White.

Odour Ethereal. / Sweetish.

Odour threshold 40 ppm

pH Not applicable.Melting point/freezing point Not available.Initial boiling point and boiling Not available.

range

Flash point Closed cup: 15 to 20°C

Evaporation rate

Flammability (solid, gas)

Burning time

Burning rate

Not available.

Not applicable.

Not applicable.

Upper/lower flammability or

Decomposition temperature

explosive limits

Not available.

Vapour pressure

Vapour density

Relative density

Solubility(ies)

Not available.

Not available.

Not available.

Not available.

water

OI/ INC

Auto-ignition temperature

Viscosity

Not available.

Not available.

Not available.

Not available.

Not available.

9.2 Other information

Explosive properties

Oxidising properties

No additional information.



Article Number

28982986



Validation date 21 November 2014

Page: 6/11

SECTION 10: Stability and reactivity

10.1 Reactivity No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability The product is stable.

10.3 Possibility of hazardous

10.4 Conditions to avoid

10.5 Incompatible materials

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder,

drill, grind or expose containers to heat or sources of ignition.

Reactive or incompatible with the following materials:

oxidizing materials

10.6 Hazardous Under normal conditions of storage and use, hazardous decomposition products should not be

decomposition products produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
acetonitrile	LC50 Inhalation Gas. LD50 Dermal LD50 Oral		17100 ppm 980 mg/kg 2460 mg/kg	4 hours - -

Conclusion/Summary Not available.

Acute toxicity estimates

Route	ATE value
Oral	645.2 mg/kg
Dermal	1264.5 mg/kg
nhalation (gases)	22064.5 ppm

Irritation/Corrosion

Conclusion/Summary Not available.

Sensitisation

Conclusion/Summary Not available.

Mutagenicity

Conclusion/Summary Not available.

Carcinogenicity

Conclusion/Summary Not available.

Reproductive toxicity

Conclusion/Summary Not available.

Teratogenicity

Conclusion/Summary Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes Routes of entry anticipated: Oral, Dermal, Inhalation.

of exposure

Potential acute health effects

Inhalation Exposure to decomposition products may cause a health hazard. Serious effects may be delayed

following exposure.

Ingestion Harmful if swallowed. Irritating to mouth, throat and stomach.

Skin contactHarmful in contact with skin.Eye contactCauses serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics



Article Number Page: 7/11

982986 Validation date 21 November 2014



Innatation No specific data

Ingestion No specific data

IngestionNo specific data.Skin contactNo specific data.

Eye contact Adverse symptoms may include the following:

pain or irritation watering redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Not available.

Potential delayed effects

Not available.

Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Potential chronic health effects

Not available.

Conclusion/Summary Not available.

GeneralNo known significant effects or critical hazards.CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

Other information Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
acetonitrile	Acute IC50 3685000 μg/l Fresh water Acute LC50 3600000 μg/l Fresh water Acute LC50 100 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours 48 hours 96 hours
	Chronic NOEC 1000000 μg/l Fresh water Chronic NOEC 160000 μg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 21 days

Conclusion/Summary Not available.

12.2 Persistence and degradability

Conclusion/Summary Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
acetonitrile	-	98%; 28 day(s)	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
acetonitrile	-0.34	0.3 to 0.4	low

12.4 Mobility in soil

Soil/water partition coefficient

Not available.

(Koc)

Mobility Not available.

12.5 Results of PBT and vPvB assessment

PBT Not applicable.

vPvB Not applicable.



Article Number Page: 8/11

28982986 Validation date 21 November 2014



12.6 Other adverse effects

No known significant effects or critical hazards

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal The generation of waste should be avoided or minimised wherever possible. Disposal of this

product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the

requirements of all authorities with jurisdiction.

Hazardous waste The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal The generation of waste should be avoided or minimised wherever possible. Waste packaging

should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions This material and its container must be disposed of in a safe way. Care should be taken when

handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact

with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1648	UN1648	UN1648	UN1648
14.2 UN proper shipping name	Acetonitrile mixture	Acetonitrile mixture	Acetonitrile mixture	Acetonitrile mixture
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	Yes.	No.	No.
Additional information	-	-	-	-

14.6 Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

Not available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.



Article Number



Annex XVII - Restrictions on the Not applicable.

manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other EU regulations

Europe inventory All components are listed or exempted.

Black List Chemicals Not listed **Priority List Chemicals** Not listed Integrated pollution Listed

prevention and control list (IPPC) - Air

Integrated pollution prevention and control list

Listed

(IPPC) - Water

Seveso II Directive

This product is controlled under the Seveso II Directive.

Danger criteria

Category

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

C7b: Highly flammable (R11)

Chemical Weapons Convention Not listed

List Schedule I Chemicals

Chemical Weapons Convention Not listed

List Schedule II Chemicals

Chemical Weapons Convention Not listed

List Schedule III Chemicals

15.2 Chemical Safety **Assessment**

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Irrit. 2, H319	On basis of test data Calculation method Calculation method Calculation method

Full text of abbreviated H H225 Highly flammable liquid and vapour. statements

H302 Harmful if swallowed. H311 Toxic in contact with skin. H312 Harmful in contact with skin. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

Full text of classifications [CLP/ Acute Tox. 3, H311 ACUTE TOXICITY: SKIN - Category 3 Acute Tox. 4, H302 GHS]

ACUTE TOXICITY: ORAL - Category 4
ACUTE TOXICITY: SKIN - Category 4 Acute Tox. 4, H312 ACUTE TOXICITY: INHALATION - Category 4 Acute Tox. 4, H332

Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2



Article Number

Validation date 21 November 2014



Page: 10/11

Full text of abbreviated R

R11- Highly flammable.

phrases R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.

R36- Irritating to eyes.

Full text of classifications [DSD/ F - Highly flammable

Xn - Harmful DPD] Xi - Irritant

Date of printing 11 February 2015 Date of issue/ Date of revision 21 November 2014 Date of previous issue 06 May 2014

Version 2.01

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that



Article Number



Page: 11/11

Validation date 21 November 2014