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

1.1 Product identifiers

Product name : Oxidizer 600 Ox Radiocarbon
Product number : 461-071
Brand : Hidex
REACH NO. : A registration number is not available for this mixture. All the substances used within the mixture are either; Pre-REACH registered, fully REACH Registered, exempt from registration or the annual tonnage does not require registration.

Unique Formula Identifier Code: Q0X5-7A8E-910J-WTFK

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

Sector of Use: SU24 Scientific Research and Development ONLY. Not for consumer use.
Application of the substance / the mixture: Liquid Scintillation Cocktail.

1.3 Details of the supplier of the safety data sheet

Supplier : Hidex Chemicals Oy
Address : Lemminkäisenkatu 62, FIN-20520, Turku, Finland
Telephone : +358 10 843 5570
Website : www.hidex.com
E-mail address : chemicals@hidex.com

1.4 Emergency telephone numbers

Call your local poison centre quoting the Unique Formula Identifier Code given in section 1.1.

Poison Centres

Country	Language	European Poison Centre	Phone	Website
Belgium	French	Centre Antipoisons	070 245 245 (free, 24/7)	https://www.centreantipoisons.be
	Dutch	Antigif centrum	070 245 245 (free, 24/7)	http://www.antigifcentrum.be
Finland	Finnish Swedish English	Helsinki University Hospital– Poison Information Centre	0800 147 111 (free, 24/7) 09 471 977 (charged)	https://www.hus.fi/en/potilaalle/sairaalat-ja-toimipisteet/myrkytystietokeskus
France	French English	Service national d'assistance reglementaire REACH	+ 33 (0) 1 45 42 59 59 (free, 24/7) This number takes you through to local poison centre numbers for the different regions	https://reach-info.ineris.fr/Numero_orfila
Germany	German English	Local Poison Centres:		
		Berlin	+49 (0) 30 19240	https://giftnotruf.charite.de
		Bonn	+49 (0) 228 19240	**http://www.gizbonn.de**
		Erfurt	+49 (0) 361 730730	https://www.ggiz-erfurt.de/home.html
		Freiburg	+49 (0) 761 19240	https://www.uniklinik-freiburg.de/giftberatung.html
		Gottingen	+49 (0) 551 19240	https://www.giz-nord.de/cms/index.php
		Homburg/Saer	+49 (0) 6841 19240	http://www.uniklinikum-saarland.de/de/einrichtungen/kliniken_institute/
		Mainz	+49 (0) 6131 19240	**http://www.giftinfo.uni-mainz.de**
		Munchen	+49 (0) 89 19240	http://www.toxinfo.med.tum.de

Cont…

Country	Language	European Poison Centre	Phone	Website
Hungary	Hungarian	Health toxicology information service	+36 80 201 199 (free 24/7 - only from Hungary) +36 1 476 6464 (24/7, can be called for a normal fee from abroad)	https://www.nnk.gov.hu/index.php/kemiai-biztonsagi-es-kompetens-hatosagi-fo/egeszsegugyi-toxikologiai-tajekoztato-szolgalat
Italy	Italian	Centro Antivelni firenze	+39 055 794 7819 (24/7)	Presentazione (antiveleni.altervista.org)
Ireland	English	Poisons information Centre of Ireland	+353 1 809 21 66 (8am-10pm / 7 days a week) +353 1 809 25 66 (24/7, healthcare profession only)	https://www.poisons.ie/
Lithuania	Lithuanian English	Poison Information Bureau part of The State Medicines Control Agency	+370 8-5 236 20 52 (free, 24/7)	http://www.apsinuodijau.lt/pirma-pagalba/
Netherlands	French English Dutch	National Poisons Information Center / University Medical Center Utrecht	+31 88 75 585 61	https://www.umcutrecht.nl/nl
Poland	Polish	National Poison Information Centres:		
		Krakow	+48 12 411 99 99	http://www.oit.cm.uj.edu.pl
		Gdansk	+48 58 682 04 04	http://www.pctox.pl/new/
		Poznań	+48 61 847 69 46	N/A
		Warszawa	+48 607 218 174	N/A
Romania	Romanian	National Institute for Public Health, Ministry of Health		
		CNMRMC	+40 213 183 606	N/A
		Spitalul Clinic de Urgenta Bucuresti	+40 215 992 300 int. 291	N/A
		Spitalul Clinic Judetean de Urgenta Targu Mures	+40 265.212.111	N/A
Slovakia	Slovak	National Toxicological Information Centre	+421 2 5477 4166	http://www.ntic.sk/ntic_en.php
Spain	Spanish	National Emergency Telephone Number of Spanish Poison Centre	+34 91 562 04 20	https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/productos-quimicos/portal-reach-clp/novedades/detalle_novedades.aspx?id=tcm:30-193752-16
Sweden	Swedish English	Swedish Poison Information Centre	**112 (24/7) Emergency** 010-456 6700 Less urgent	In English - Giftinformationscentralen
UK	English	National Poisons Information Service NHS	+44 (0) 344 892 0111 - Healthcare Professionals ONLY 111 – General public	https://www.npis.org/Industrynotify.html https://www.nhs.uk/nhs-services/

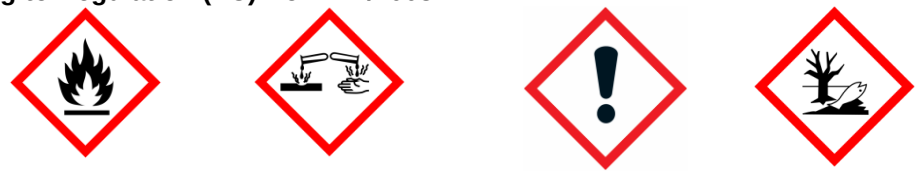
SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008:

Flammable liquid and vapour	Category 3	H226
Acute toxicity, Oral	Category 4	H302
Skin corrosive	Category 1a	H314
Skin sensitisation	Category 1	H317
Eye damage	Category 1	H318
Specific Target Organ Toxicity	- Single Exposure 3	H335
Aquatic	Chronic 2	H411

For the full text of the H-Statements mentioned here - see section 16

2.2 Label elements
Classification according to Regulation (EC) No 1272/2008:
Hazard pictograms



GHS02 **GHS05** **GHS07** **GHS09**

Signal word Danger

Contains: 1,2,4-Trimethylbenzene, 2-Methypropan-1-ol and 3-Methoxypropylamine

Hazard statements

H226	Flammable liquid and vapour
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H335	May cause respiratory irritation
H411	Toxic to aquatic life with long lasting effects

Precautionary statements

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position

2.3 Other hazards

Results of PBT and vPvB assessment:
This product does not contain any substances that meet the criteria for PBT or vPvB

Endocrine disrupting properties:
This product does not contain any substances that have endocrine disrupting properties.

SECTION 3: Composition / Information on Ingredients

3.1 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with non-hazardous additions.

Hazardous components:

1,2,4 - Trimethylbenzene					
CAS #: 95-63-6 EC #: 202-436-9 REACH: 01-21194-72135-42-XXXX	Flammable liquid category 3 Skin irritation category 2 Eye irritation category 2 Acute toxicity 4 Specific Target Organ Toxicity - Single Exposure Chronic aquatic 2	H226 H315 H319 H332 H335 H411	25-50%	ATE: M Factor: SCL:	N/A N/A N/A
2 - Methylpropan-1-ol					
CAS #: 78-83-1 EINECS: 201-148-0 REACH: 01-2119484609-23-XXXX	Flammable liquid category 3 Eye damage category 1 Skin irritation category 2 Specific Target Organ Toxicity - Single Exposure 3	H226 H318 H315 H335 H336	2.5-10%	ATE: M Factor: SCL:	N/A N/A N/A
3 - Methoxypropylamine					
CAS #: 5332-73-0 EINECS: 226-241-3 REACH: 01-2119972298-23-XXXX	Flammable liquid category 3 Acute toxicity oral 4 Skin Corrosion category 1a Eye irritation category 1 Skin sensitization 1	H226 H302 H314 H318 H317	50-80%	ATE: M Factor: SCL:	N/A N/A N/A

For the full text of the H-Statements mentioned here - see section 16

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General information: Consult a doctor and show this safety data sheet to the doctor in attendance.

If inhaled: Move person into fresh air.
In case of contact with skin contact: Wash off with plenty of water.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor. Protect unharmed eye.
If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing agents: Carbon Dioxide, dry powder or water spray.
Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture This product is combustible.

5.3 Advice for fire-fighters

Special Protective equipment: Wear self-contained respiratory protective device.
Wear fully protective suit.
Further Information: Cool closed containers exposed to fire with water spray. Contaminated water must not be discharged into drains.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Keep away from ignition sources.
Use personal protective equipment.
Keep unprotected persons away.

Special precautions: Not applicable.

6.2 Environmental precautions: Inform respective authorities in case of seepage into water course.
Do not allow to enter surface or ground water.
Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Ensure adequate ventilation.
Pick up mechanically
Dispose of according to local regulations (see section 13).

6.4 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.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Advice on safe handling: Wear personal protective equipment.
Avoid contact with skin and eyes.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Information about fire and explosion protection: Keep away from sources of ignition and do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed and protect from light.

7.3 Specific end use(s): Advised temperature of use: 15-25°C
Uses identified and documented.

SECTION 8: Exposure Controls / Personal Protection

8.1 Control parameters **Components with workplace control parameters:**

Substance	CAS number	Country	Limit values			
			Eight hours		Short-term	
			mg/m³	ppm	mg/m³	ppm
1,2,4 -Trimethylbenzene	**95-63-6**	UK	25	125		
		Austria	20	100		
		Belgium	20	100		
		EU	20	100		
		Finland	20	100		
		France				
		Germany	20	100	40	200
		Hungary		100		
		Italy	20	100		
		Lithuania				
		Netherlands		100		200
		Poland		100		170
		Romania				
		Slovakia				
		Spain	20	100		
		Sweden				
2-methylpropan-1-ol	**78-83-1**	UK				
		Austria	50	150	200	600
		Belgium	50	154		
		EU				
		Finland				
		France	50	150		
		Germany	100	310	100	310
		Hungary				
		Italy				
		Lithuania				
		Netherlands				
		Poland		100		200
		Romania	33	100	66	200
		Slovakia				
		Spain	50	154		
		Sweden	50	150	75	250

8.2 Exposure controls

General protective and hygienic measures: Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or sniff while working.
Wear suitable gloves and eye protection.

Personal Protective Equipment:

Respiratory protection: No personal respiratory protective equipment normally required.

Protection of hands: Handle with protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion & degradation.

Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material:	The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it.
Eye protection:	Safety glasses with side shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(Us) or EN 166(EU).
Body protection:	Protective work clothing. The type of protective clothing must be selected according to the concentration and amount of the dangerous substance at the specified workplace.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Form:	Liquid
Colour:	According to specification
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	118°C
Flash point:	30°C
Flammability (solid, gaseous):	Not applicable
Ignition temperature:	320°C
Decomposition temperature:	Not determined
Self-igniting:	Product is not self-igniting
Danger of explosion:	Product is not explosive. However, formation of explosive air / vapour mixtures is possible
Explosion limits:	
Lower:	1.1 Vol%.
Upper:	12.3 Vol %.
Vapour pressure:	16 hPa
Density at 20 °C:	0.87 g/cm^3
Relative density	Not determined
Vapour density	Not determined.
Evaporation rate	Not determined
Solubility in / Miscibility with water:	Not miscible
Particle size	NA
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined

9.2 Other information No further relevant information available

Information with regard to physical hazard class: No additional information
Other Safety Characteristics: No additional information

SECTION 10: Stability and Reactivity

10.1 Reactivity: No data available.

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: No decomposition if used according to specifications.
Reacts with strong oxidising agents.

10.4 Conditions to avoid Toxic fumes may be released if heated above decomposition point.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: Carbon monoxide, carbon dioxide and nitrogen oxides.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity: LC/LD50 Values relevant for classification:

Component	CAS - No	LD/LC50
1,2,4 - trimethylbenzene	95-63-6	ORAL 6000 mg/kg (rat)
2-methylpropan-1-ol	78-83-1	ORAL >2000mg/kg (rat), DERMAL >2000mg/kg (rabbit), INHALATION> 24 mg/l (rat)
3 -methoxypropylamine	5332-73-0	ORAL 598.4 mg/kg (rat) DERMAL 2000 mg/kg (rat)

Skin corrosion / irritation: Causes severe skin burns – strong caustic effect.

Serious eye damage / eye irritation: Causes serious eye damage – strong caustic effect.

Respiratory sensitisation: May cause respiratory irritation.

Germ cell mutagenicity: Based on available data, classification criteria not met

Carcinogenicity: Based on available data, classification criteria not met

Reproductive toxicity: Based on available data, classification criteria not met

Specific Target Organ Toxicity – Single Exposure: May cause respiratory irritation

May cause drowsiness or dizziness

Specific Target Organ Toxicity – Repeated Exposure: Based on available data, classification criteria not met.

Aspiration hazard: Based on available data, classification criteria not met

.

Additional information: The toxicological properties have not been fully investigated.

SECTION 12: Ecological Information

12.1 Toxicity

Aquatic toxicity:

Component	CAS - No	LC50 / 96 hours
1,2,4 - trimethylbenzene	95-63-6	Pimephales promelas (fathead minnoe) 7.72 mg/l

12.2 Persistence and degradability: No further relevant information available.
12.3 Bio accumulative potential: No further relevant information available.
12.4 Mobility in soil: No further relevant information available.
12.5 Results of PBT and vPvB Assessment: This mixture does not meet the criteria for PBT or vPvB.
12.6 Endocrine disrupting properties: This product does not contain any substances that have endocrine disrupting properties.

Additional ecological information:
General notes: Toxic to aquatic life with long lasting effects.
Discharge into the environment must be avoided.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Product: Waste product must be disposed of according to local authority recommendations, e.g. convey to a suitable incinerator.

Uncleaned Packaging: Disposal must be made according to official regulations. Uncleaned packaging may be classifiable as hazardous waste.

SECTION 14: Transport Information

14.1 UN-Number

ADR, IMDG, IATA UN2920

14.2 UN proper shipping name -

ADR 2920 CORROSIVE LIQUID FLAMMABLE, N.O.S. (3-methoxypropylamine, 1,2,4-trimethylbenzene, 2-methylpropan-1-ol), ENVIRONMENTALLY HAZARDOUS

IMDG / IATA CORROSIVE LIQUID,FLAMMABLE, N.O.S CORROSIVE LIQUID, FLAMMABLE, N.O.S. (3-methoxypropylamine,1, 2, 4-trimethylbenzene, 2-methylpropan-1-ol), MARINE POLLUTANT

14.3 Transport hazard class(es)

ADR, IMDG, IATA

Class 8 Corrosive substances
3 flammable liquids

Label 8 + 3

14.4 Packing group

ADR, IMDG, IATA II

14.5 Environmental hazards: Product contains environmentally hazardous substances: 1,2,4-trimethylbenzene

Marine pollutant: Yes

Special marking (ADR): Symbol (fish and tree)

14.6 Special precautions for user Danger
Flammable liquid
Corrosive substances.

Danger code (Kemler): 83

EMS Number: F-A,S-B

Segregation groups Alkalis

14.7 Maritime transport in bulk according to IMO instruments

ADR

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

Transport category 2

Tunnel restriction code D/E

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": UN2920, CORROSIVE, FLAMMABLE LIQUID,N.O.S. (3-METHOXYPROPYLAMINE, 1,2,4- TRIMETHYLBENZENE, 2-METHYLPROPAN-1-OL,8 (3), II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory Information

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

No further relevant information available.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

Section 16: Other Information

Full text H- statements referred to under section 2 and 3

H226	Flammable liquid and vapour
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H411	Toxic to aquatic life with long lasting effects

Precautionary statements

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

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

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

NIOSH: National Institute of Occupational Safety and Health

LL50: Loading rate of test substance resulting in 50% mortality)

LD50: Lethal dose, 50 percent

LC50: Lethal Concentration, 50 percent

ATE: Acute Toxicity Estimate

M Factor: Multiplying factor for substances that are highly toxic to aquatic environment

SCL: *Specific Concentration* Limit: a concentration limit that is specific to a substance and takes precedence over generic concentration limit or cut-off