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

1.1 Product identifiers

Product name : CarbonCount
Product number : CC/10
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: RD10-J0J6-C006-ENK3

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
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)

Country	Language	European Poison Centre	Phone	Website
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 CLP Regulation (EC) No 1272/2008

Flammable liquid	Category 3	H226
Skin Irritation	Category 2	H315
Eye irritation	Category 2	H319
Acute Toxicity – Inhalation	Category 4	H332
Specific Target Organ Toxicity (STOT) Single Exposure –Respiratory System	Category 3	H335
Aquatic chronic toxicity	Category 2	H411

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

2.2 Label elements

Classification according to CLP Regulation (EC) No 1272/2008

Hazard pictograms

GHS02

GHS07

GHS09

Signal word **Warning**

Cont…

Contains: 1,2,4-Trimethylbenzene and 1-Methoxy-2-propanol

Hazard statements

H226	Flammable liquid and vapour
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
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 and other ignition sources. No smoking.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+ P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

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	60-90%	ATE: M Factor: SCL:	N/A N/A N/A
1-Methoxy-2-propanol					
CAS #: 107-98-2 EC#: 203-539-1 REACH: 01-21194-57435-35-XXXX	Flammable liquid category 3 Specific Target Organ Toxicity - Single Exposure	H226 H336	10-20%	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. 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 information available.

4.3 Indication of any immediate medical attention / special treatment needed: No further 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: No further relevant information available.

5.3 Advice for fire-fighters

Special Protective equipment: Wear self-contained respiratory protective device & a 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: 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).
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.
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.
Protect from exposure to direct sunlight.

7.3 Specific end use(s): Advised temperature of use: 10-25°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	
			ppm	mg/m³	ppm	mg/m³
1,2,4 -Trimethylbenzene	**95-63-6**	United Kingdom	25	125		
		European Union	20	100		
		France	20	100		
		Germany	20	100	40	200
		Netherlands		100		200
		Slovakia				
		Finland				
		Poland		100		170
		Hungary		100		
		Belgium	20	100		
		Spain	20	100		
		Romania	20	100		
		Lithuania				
1-methoxy-2-propanol (propylene glycol monomethyl ether)	**107-98-2**	United Kingdom	100	375	150	560
		European Union	100	375	150	568
		Belgium	50	184	100	369
		Finland	100	370	150	560
		France	50	188	100	375
		Germany	100	370	200	740
		Hungary		375		568
		Poland		180		360
		Romania	100	375	150	568
		Spain	100	375	150	568
		The Netherlands		375		563

Cont…

8.2 Exposure controls
General protective and hygienic measures: Handle in accordance with good industrial hygiene and safety practice. 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, body and eye protection and a face shield.

Personal Protective Equipment:
Respiratory protection: No personal respiratory protective equipment normally required.
Skin protection: Handle with protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Selection of the

	glove material on consideration of the penetration times, rates of diffusion and the degradation.
Splash contact	Material: Nitrile-rubber. Minimum layer thickness: 0.4 mm. Break through time: 30 min. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario
Eye / face protection:	Tightly fitting safety goggles. Faceshield (8-inch minimum). 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 – complete suit protecting against chemicals. The type of protective clothing must be selected according to the concentration and amount of the dangerous substance at the workplace.
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	168°C
Flash point:	36°C
Flammability (solid, gaseous):	Not applicable
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Self-igniting:	Product is not self-igniting
Danger of explosion:	Product is not explosive.
Density at 20 °C:	0.9 gm/cm^3
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Particle size	Not applicable
Partition coefficient (n-octanol/water):	Not determined
Viscosity Dynamic:	Not determined
Kinematic:	Not determined

9.2 Other information

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. No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions:	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 and carbon dioxide.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Component	CAS – No	LD50 / 48 hours
1,2,4 - Trimethylbenzene	95-63-6	ORAL 10,2 mg/kg (rat)
1-Methoxy-2-propanol	107-98-2	LD50 rat (11,700 mg/kg) oral LD50 rat (> 7,000 ppm) inhalation LD50 rat (> 2,000 mg/kg) dermal

Skin corrosion / irritation: Causes skin irritation.
Serious eye damage / eye irritation: Causes serious eye damage.
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, suspected of damaging unborn child.
Specific Target Organ Toxicity – Single Exposure: Respiratory irritation.
Specific Target Organ Toxicity – Repeated Exposure: Based on available data, classification criteria not met.
Aspiration hazard: May be fatal if swallowed and enters airways.
Additional information: The toxicological properties have not been fully investigated.

SECTION 12: Ecological Information

Component	CAS – No	LC50 / 96 hours
1,2,4 - Trimethylbenzene	95-63-6	Pimephales promelas (fathead minnoe) 7.72 mg/l
1-Methoxy-2-propanol	107-98-2	Golden orfe < 10,000 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: No further relevant information available.

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 UN1993

14.2 UN proper shipping name - ADR 1993 FLAMMABLE LIQUID, N.O.S. (1,2,4-trimethylbenzene), ENVIRONMENTALLY HAZARDOUS
IMDG FLAMMABLE LIQUID, N.O.S. (1,2,4-trimethylbenzene) MARINE POLLUTANT
IATA FLAMMABLE LIQUID, N.O.S. (1,2,4-trimethylbenzene)

14.3 Transport hazard class(es)

ADR, IMDG, IATA

Class	3 Flammable liquids
Label	3

14.4 Packing group -

ADR, IMDG, IATA	III

14.5 Environmental hazards:	Product contains environmentally hazardous substance: 1,2,4-trimethylbenzene
Marine pollutant:	Yes
Special marking (ADR):	Symbol (fish and tree)

14.6 Special precautions for user	Warning: Flammable liquids.
Danger code (Kemler):	30
EMS Number:	F-E,S-E

14.7 Maritime transport in bulk according to IMO instruments

Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	D/E

IMDG

Limited quantities (LQ)	5L
Excepted quantities (EQ) Code:	E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN1993, FLAMMABLE LIQUID, N.O.S. (1,2,4-trimethylbenzene), ENVIRONMENTALLY HAZARDOUS, 3, III

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No further information available.

15.2 Chemical safety assessment
A Chemical Safety Assessment has not been carried out.

SECTION 16: Other Information

Hazard statements

H226	Flammable liquid and vapour
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
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
P261	Avoid breathing vapours
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+ P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

This 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.

Last updated April 2023

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