



SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture
BRAKLEEN PRO

Synonyms
None.

Product code
BDS001984BU

Issue date
17-September-2020

Version number
01

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

Identified uses
Cleaners - Heavy duty

Uses advised against
None known.

1.3. Details of the supplier of the safety data sheet

Company name
CRC Industries Europe bvba

Address
Touwslagerstraat 1
9240 Zele
Belgium

Telephone
+32(0)52/45.60.11

Fax
+32(0)52/45.00.34

E-mail
hse@crcind.com

Website
www.crcind.com

1.4. Emergency telephone number

Tel.: +32(0)52/45.60.11 (office hours)

General in EU
112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Austria National Poisons Information Centre
+431 406 4343 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Belgium National Poisons Control Center
070 245 245 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Bulgaria National Toxicological Information Center
+359 2 9154233 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Czech Republic National Poisons Information Centre
+420 224 919 293, or +420 224 915 402 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

Denmark National Poisons Control Center
+45 82 12 12 12 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Estonia National Poisons Information Centre
16662 or abroad: (+372) 626 9390 (Monday 9:00AM to Saturday 9:00AM (closed on Sundays and on national holidays). SDS/Product information may not be available for the Emergency Service.)

Finland National Poison Information Center
(09) 471 977 (direct) or (09) 4711 (exchange) (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

France National Poisons Control Center
ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Hungary National Emergency Phone Number
36 80 20 11 99 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Lithuania Neatidėliotina informacija apsinuodijus
+370 5 236 20 52 or +37068753378 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

Malta Accident and Emergency Department
2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

Netherlands National Poisons Information Center (NVIC)	030-274 88 88 (Only for the purpose of informing medical personnel in cases of acute intoxications)
Norway Norwegian Poison Information Center	22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Romania Biroul RSI si Informare Toxicologica	021.318.36.06 (Available 8:00AM-3:00PM. SDS/Product information may not be available for the Emergency Service.)
Slovakia National Toxicological Information Center	+421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Sweden National Poison Information Center	112 - and ask for Poison Information (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Flammable liquids	Category 2	H225 - Highly flammable liquid and vapour.
-------------------	------------	--

Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Specific target organ toxicity - single exposure	Category 3 narcotic effects	H336 - May cause drowsiness or dizziness.
Aspiration hazard	Category 1	H304 - May be fatal if swallowed and enters airways.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.
--	------------	---

Hazard summary

May be ignited by heat, sparks or flames. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Causes serious eye irritation. Causes skin irritation. Dangerous for the environment if discharged into watercourses. Occupational exposure to the substance or mixture may cause adverse health effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: acetone; propan-2-one; propanone, Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane, Hydrocarbons, C7, n-alkanes, isoalkanes, cyclic, Propan-2-ol; Isopropyl alcohol; Isopropanol

Hazard pictograms



Signal word

Danger

Hazard statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P102	Keep out of reach of children.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.

Response

P301 + P310
P331

IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
Do NOT induce vomiting.

Storage

P405

Store locked up.

Disposal

P501

Dispose of contents/container (in accordance with related regulations).

Supplemental label information

Regulation (EC) No 648/2004 on detergents: aliphatic hydrocarbons > 30 %

2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	25 - 50	EC921-024-6 -	01-2119475514-35	-	Classification: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclic	25 - 50	EC927-510-4 -	01-2119475515-33	-	Classification: Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Aquatic Chronic 2;H411
acetone; propan-2-one; propanone	5 - 10	67-64-1 200-662-2	01-2119471330-49-xxxx	606-001-00-8	#
					Classification: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336
Propan-2-ol; Isopropyl alcohol; Isopropanol	5 - 10	67-63-0 200-661-7	01-2119457558-25	603-117-00-0	
					Classification: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information

Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison centre or doctor/physician if you feel unwell.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.2. Most important symptoms and effects, both acute and delayed

Aspiration may cause pulmonary oedema and pneumonitis. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

4.3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards

Highly flammable liquid and vapour.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For emergency responders Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. The product is immiscible with water and will spread on the water surface. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist/vapours. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria

Components

Type

Value

Hydrocarbons, C6-C7,
n-alkanes, isoalkanes, cyclic
s, < 5% n-hexane

TWA (MAK)

200 ppm

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	MAK	1200 mg/m3
		500 ppm
	STEL	4800 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)		2000 ppm
	MAK	500 mg/m3
		200 ppm
	STEL	2000 mg/m3
		800 ppm

Belgium. Exposure Limit Values

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	2420 mg/m3
		1000 ppm
	TWA	1210 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)		500 ppm
	STEL	1000 mg/m3
		400 ppm
	TWA	500 mg/m3
		200 ppm

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	1400 mg/m3
	TWA	600 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1225 mg/m3
	TWA	980 mg/m3

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	MAC	1210 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	MAC	999 mg/m3
		400 ppm
	STEL	1250 mg/m3
		500 ppm

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Type	Value
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	980 mg/m3
		400 ppm

Czech Republic. OELs. Government Decree 361

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	Ceiling	1500 mg/m3
	TWA	800 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	Ceiling	1000 mg/m3
	TWA	500 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TLV	600 mg/m3
		250 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TLV	490 mg/m3
		200 ppm

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	600 mg/m3
		250 ppm
	TWA	350 mg/m3 150 ppm

Finland. Workplace Exposure Limits

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	1500 mg/m3
	TWA	630 ppm
		1200 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	500 ppm
		620 mg/m3
	TWA	250 ppm
		500 mg/m3
		200 ppm

France

Components	Type	Value
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic s, < 5% n-hexane	STEL	1500 mg/m3
	TWA	1000 mg/m3

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	VLE	2420 mg/m3
	Regulatory status: Regulatory binding (VRC)	1000 ppm
	Regulatory status: Regulatory binding (VRC)	

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value
	VME	1210 mg/m3
Regulatory status:	Regulatory binding (VRC)	
		500 ppm
Regulatory status:	Regulatory binding (VRC)	
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	VLE	980 mg/m3
Regulatory status:	Indicative limit (VL)	
		400 ppm
Regulatory status:	Indicative limit (VL)	

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1200 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	500 mg/m3
		200 ppm

Germany - TRGS 900

Components	Type	Value
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic s, < 5% n-hexane	TWA	700 mg/m3
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclic	TWA	1500 mg/m3

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	AGW	1200 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	AGW	500 mg/m3
		200 ppm

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	3560 mg/m3
	TWA	1780 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1225 mg/m3
		500 ppm
	TWA	980 mg/m3
		400 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	2000 mg/m3
	TWA	500 mg/m3

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	600 mg/m3
		250 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	490 mg/m3
		200 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	600 mg/m3
	TWA	350 mg/m3

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	2420 mg/m3
		1000 ppm
	TWA	1210 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	500 ppm
		600 mg/m3
	TWA	250 ppm
		350 mg/m3
		150 ppm

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm

Netherlands. OELs (binding)

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	2420 mg/m3
	TWA	1210 mg/m3

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TLV	295 mg/m3
		125 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TLV	245 mg/m3
		100 ppm

Poland. Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	1800 mg/m3
	TWA	600 mg/m3
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1200 mg/m3
	TWA	900 mg/m3

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	750 ppm
	TWA	500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	500 mg/m3
	TWA	203 ppm 200 mg/m3 81 ppm

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m ³
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1000 mg/m ³
		400 ppm
	TWA	500 mg/m ³
		200 ppm

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m ³
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	TWA	500 mg/m ³
		200 ppm

Spain. Occupational Exposure Limits

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m ³
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1000 mg/m ³
		400 ppm
	TWA	500 mg/m ³
		200 ppm

Sweden

Components	Type	Value
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic s, < 5% n-hexane	STEL (STV)	300 ppm
	TWA	200 ppm
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclic	STEL (STV)	300 ppm
	TWA	200 ppm

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	1200 mg/m ³
		500 ppm
	TWA	600 mg/m ³
		250 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	600 mg/m ³
		250 ppm
	TWA	350 mg/m ³
		150 ppm

Switzerland Components	Type	Value
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic s, < 5% n-hexane	TWA	500 ppm
Switzerland. SUVA Grenzwerte am Arbeitsplatz Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	2400 mg/m3
		1000 ppm
	TWA	1200 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
		400 ppm
	TWA	500 mg/m3
		200 ppm
UK. EH40 Workplace Exposure Limits (WELs) Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	STEL	3620 mg/m3
		1500 ppm
	TWA	1210 mg/m3
		500 ppm
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	STEL	1250 mg/m3
		500 ppm
	TWA	999 mg/m3
		400 ppm
EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU Components	Type	Value
acetone; propan-2-one; propanone (CAS 67-64-1)	TWA	1210 mg/m3
		500 ppm

Biological limit values

Croatia. BLV. Dangerous Substance Exposure Limit Values at Workplace, Annexes 4 (as amended)

Components	Value	Determinant	Specimen	Sampling Time
acetone; propan-2-one; propanone (CAS 67-64-1)	20 mg/g	Acetone	Creatinine in urine	*
	20 mg/l	Acetone	Blood	*
	0,34 mmol/l	Acetone	Blood	*
	39 mmol/mol	Acetone	Creatinine in urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	50 mg/l	Acetone	Blood	*
	50 mg/l	Acetone	Urine	*
	0,86 umol/l	Acetone	Urine	*
	0,86 umol/l	Acetone	Blood	*

* - For sampling details, please see the source document.

France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)

Components	Value	Determinant	Specimen	Sampling Time
acetone; propan-2-one; propanone (CAS 67-64-1)	100 mg/l	Acétone	Urine	*

* - For sampling details, please see the source document.

Germany. TRGS 903, BAT List (Biological Limit Values)

Components	Value	Determinant	Specimen	Sampling Time
acetone; propan-2-one; propanone (CAS 67-64-1)	80 mg/l	ACETON	Urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	25 mg/l	ACETON	Urine	*
	25 mg/l	ACETON	Blood	*

* - For sampling details, please see the source document.

Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2

Components	Value	Determinant	Specimen	Sampling Time
acetone; propan-2-one; propanone (CAS 67-64-1)	53,36 mg/g	Acetone	Creatinine in urine	*
	80 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4

Components	Value	Determinant	Specimen	Sampling Time
acetone; propan-2-one; propanone (CAS 67-64-1)	50 mg/l	Acetona	Urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	40 mg/l	Acetona	Urine	*

* - For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

Components	Value	Determinant	Specimen	Sampling Time
acetone; propan-2-one; propanone (CAS 67-64-1)	80 mg/l	ACETON	Urine	*
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	25 mg/l	ACETON	Urine	*
	25 mg/l	ACETON	Blood	*

* - For sampling details, please see the source document.

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)**General Population**

Components	Value	Assessment factor	Notes
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane (CAS EC921-024-6)			
Long-term, Systemic, Dermal	699 mg/kg bw/day		
Long-term, Systemic, Inhalation	608 mg/m3		
Long-term, Systemic, Oral	699 mg/kg bw/day		
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)			
Long-term, Systemic, Dermal	319 mg/kg bw/day	2	Repeated dose toxicity
Long-term, Systemic, Inhalation	89 mg/m3	2	Repeated dose toxicity
Long-term, Systemic, Oral	26 mg/kg bw/day	2	Repeated dose toxicity

Workers

Components	Value	Assessment factor	Notes
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane (CAS EC921-024-6)			
Long-term, Systemic, Dermal	773 mg/kg bw/day		
Long-term, Systemic, Inhalation	2035 mg/m3		
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)			
Long-term, Systemic, Dermal	888 mg/kg bw/day	1	
Long-term, Systemic, Inhalation	500 mg/m3	1	

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)			
Freshwater	140,9 mg/l	1	
Marine water	140,9 mg/l	1	
Secondary poisoning	160 mg/kg	30	Oral

Sediment (freshwater)	552 mg/kg
Sediment (marine water)	552 mg/kg
Soil	28 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection

Use eye protection conforming to EN 166.

Skin protection

- Hand protection

When handling the product wear chemical-resistant gloves (standard EN 374). The breakthrough time of the glove should be longer than the total duration of product use. If work lasts longer than the breakthrough time, gloves should be changed part-way through. Wear protective gloves. Full contact: Glove material: Neoprene. Use gloves with breakthrough time of 480 minutes. Minimum glove thickness 0.38 mm.

- Other

Wear appropriate chemical resistant clothing.

Respiratory protection

Chemical respirator with organic vapour cartridge and full facepiece. (Filter type AX)

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls

Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may 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.

Form Liquid.

Colour Colourless.

Odour Solvent.

Odour threshold Not available.

pH Not applicable.

Melting point/freezing point -94,7 °C (-138,5 °F) estimated

Initial boiling point and boiling range 56 - 99 °C (132,8 - 210,2 °F)

Flash point -26,0 °C (-14,8 °F)

Evaporation rate 2,8 (Ether=1)

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 2,5 % estimated

Flammability limit - upper (%) 12,8 % estimated

Vapour pressure Not available.

Vapour density 3

Vapour density temp. 20 °C (68 °F)

Relative density 0,71 g/cm³

Relative density temperature 20 °C (68 °F)

Solubility(ies)

Solubility (water) Insoluble in water

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	> 200 °C (> 392 °F)
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	
Chemical family	Cleaner
VOC	715 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the decomposition temperature. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
10.5. Incompatible materials	Acids. Strong oxidising agents. Chlorine. Isocyanates.
10.6. Hazardous decomposition products	Not available.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
----------------------------	--

Information on likely routes of exposure

Inhalation	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms	Aspiration may cause pulmonary oedema and pneumonitis. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

11.1. Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.
-----------------------	---

Components	Species	Test Results
acetone; propan-2-one; propanone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rat	15800 mg/kg
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane		
Acute		
Dermal		
<i>Liquid</i>		
LD50	-	2920 mg/kg bw/day, 24 h
Inhalation		
<i>Vapour</i>		
LC50	Rat	30000 mg/m ³ , 4 h
Oral		
<i>Liquid</i>		
LD50	Rat	5840 mg/kg bw/day
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory sensitisation	Based on available data, the classification criteria are not met.	

Skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	May be fatal if swallowed and enters airways.
Mixture versus substance information	Not available.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity	Toxic to aquatic life with long lasting effects.
12.2. Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
12.3. Bioaccumulative potential	
Partition coefficient n-octanol/water (log Kow)	
acetone; propan-2-one; propanone	-0,24
Propan-2-ol; Isopropyl alcohol; Isopropanol	0,05
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.
12.6. Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.

12.7. Additional information

Estonia Dangerous substances in soil Data

Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)	Chemical pesticides (As the total sum of the active substances) 0,5 mg/kg Chemical pesticides (As the total sum of the active substances) 20 mg/kg Chemical pesticides (As the total sum of the active substances) 5 mg/kg
---	---

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (isopropanol, acetone, hydrocarbons)

14.3. Transport hazard class(es)

Class 3
Subsidiary risk -
Hazard No. (ADR) Not available.
Tunnel restriction code (D/E)
ADR/RID - Classification F1
code:

14.4. Packing group II

14.5. Environmental hazards Yes

14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling.
for user

IATA

14.1. UN number UN1993

14.2. UN proper shipping name FLAMMABLE LIQUID, N.O.S. (isopropanol, acetone, hydrocarbons)

14.3. Transport hazard class(es)

Class 3
Subsidiary risk -

14.4. Packing group II

14.5. Environmental hazards Yes

14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling.
for user

IMDG

14.1. UN number UN1993

14.2. UN proper shipping name FLAMMABLE LIQUID, N.O.S. (isopropanol, acetone, hydrocarbons)

14.3. Transport hazard class(es)

Class 3
Subsidiary risk -

14.4. Packing group II

14.5. Environmental hazards

Marine pollutant Marine pollutant

EmS F-E, S-E

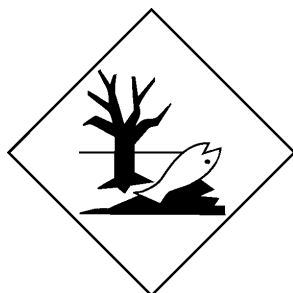
14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling.
for user

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

ADR; IATA; IMDG



Marine pollutant

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

acetone; propan-2-one; propanone (CAS 67-64-1)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

acetone; propan-2-one; propanone (CAS 67-64-1)

Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

acetone; propan-2-one; propanone (CAS 67-64-1)

Propan-2-ol; Isopropyl alcohol; Isopropanol (CAS 67-63-0)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of 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.

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).

ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).

CAS: Chemical Abstract Service.

Ceiling: Short Term Exposure Limit Ceiling value.

CEN: European Committee for Standardization.

CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.

GWP: Global Warming Potential.

IATA: International Air Transport Association.

IBC: Intermediate Bulk Container.

IMDG: International Maritime Dangerous Goods.

MAC: Maximum Allowed Concentration.

MAK: Threshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG).

MARPOL: International Convention for the Prevention of Pollution from Ships.

PBT: Persistent, bioaccumulative, toxic.

REACH: Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals).

RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
STEL: Short term exposure limit.
TLV: Threshold Limit Value.
TWA: Time Weighted Average.
VLE: Exposure Limit Value.
VME: Exposure Average Value.
VOC: Volatile organic compounds.
vPvB: Very persistent and very bioaccumulative.
STEL: Short-term Exposure Limit.

References

Information on evaluation method leading to the classification of mixture

Full text of any H-statements not written out in full under Sections 2 to 15

Not available.

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Revision information

Training information

Disclaimer

None.

Follow training instructions when handling this material.

CRC Industries Europe bvba cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.