

SAFETY DATA SHEET

According to the Hazard Communication Standard, 29 CFR 1910.1200

SDS #: 089539

TOTAL CORE 50

Date of the previous version: 2020-01-24

Revision Date: 2020-01-28

Version 1.01

1. IDENTIFICATION		
Product identifier		
Product name	TOTAL CORE 50	
Other means of identification		
Product Code(s)	089539	
Number Substance/mixture	Mixture	
Recommended use of the chemica	and restrictions on use	
Identified uses	Racing fuel for use in Motorsports.	
Uses advised against	Do not use for any purpose other than the one for which it is intended	
Details of the supplier of the safety data sheet		
Supplier Address	TOTAL Specialties USA, In 1201 Louisiana St. Suite 18 Houston, TX 77002 Phone: 713-483-5000	
Contact Point	Technical/ HSEQ	
E-mail Address	rm.acs-fds@total.com	
Emergency telephone number Emergency telephone	D 1	-866-928-0789 (For Emergencies, call CARECHEM 24/7 Domestic) -215-207-0061 (For Emergencies, call CARECHEM 24/7 International)

2. HAZARDS IDENTIFICATION

Classification

Flammable liquids - Category 2 Skin corrosion/irritation - Category 2 Germ Cell Mutagenicity - Category 1B Carcinogenicity - Category 1B Reproductive toxicity - Category 2 Specific target organ systemic toxicity (single exposure) - Category 3 Specific target organ systemic toxicity (repeated exposure) - Category 2 Aspiration toxicity - Category 1



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Label elements



DANGER

Hazard Statements

Highly flammable liquid and vapor Causes skin irritation May cause genetic defects May cause cancer Suspected of damaging fertility or the unborn child May cause drowsiness or dizziness May cause damage to organs through prolonged or repeated exposure May be fatal if swallowed and enters airways

Precautionary Statements - Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Wash face, hands and any exposed skin thoroughly after handling Use only outdoors or in a well-ventilated area Do not breathe dust/fume/gas/mist/vapors/spray Keep away from heat/sparks/open flames/hot surfaces. - No smoking Keep container tightly closed Ground/bond container and receiving equipment Use only non-sparking tools Take precautionary measures against static discharge Keep cool Use explosion-proof electrical/ ventilating / lighting equipment

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention Specific treatment (see supplemental first aid instructions on this label) Skin If skin irritation occurs: Get medical advice/attention IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Ingestion IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting Fire

In case of fire: Use CO2, dry chemical, or foam for extinction



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Precautionary Statements - Storage

Store locked up Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC) None known

Other information Environmental properties

Should not be released into the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	CAS-No	Weight %
toluene	108-88-3	25 - 50
Naphtha (petroleum), full-range alkylate, butane-contg.	68527-27-5	10 - 25
ETHANOL	64-17-5	5 - 10
hydrocarbons, C6, isoalkanes, <5% n-hexane	٨	5 - 10
2-ethoxy-2-methylpropane	637-92-3	5 - 10
hexene	25264-93-1	2.5 - 5
Hydrocarbons, C5-rich	68476-55-1	10-25

Other constituents required for disclosure

Chemical Name	CAS-No	Weight %
isopentane	78-78-4	2.5 - 5
Pentane	109-66-0	2.5 - 5
oct-1-ene	111-66-0	1 - 2.5
n-Hexane	110-54-3	0.1 - 1
xylene	1330-20-7	0.1 - 1
Benzene	71-43-2	0.1 - 1

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE. Show this safety data sheet to the doctor in attendance.



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Eye contact	Rinse thoroughl eye wide open v	ly with plenty of water for at least 15 minutes and c while rinsing.	onsult a physician. Keep	
Skin contact		diately with soap and plenty of water while removing the second plenty of water while removing before reuse.	g all contaminated	
Inhalation	breathing. Inhal	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Inhalation of high concentrations of vapor or aerosols may cause irritation of the upper respiratory tract. If not breathing, give artificial respiration. Call a physician immediately.		
Ingestion	with water. New vomiting withour	CENTER or doctor/physician if exposed or you fee er give anything by mouth to an unconscious perso t medical advice. Smallest quantities reaching the I comiting may result in lung edema or pneumonia.	on. Do not induce	
Protection of First-aiders	artificial respirat	th-to-mouth method if victim ingested or inhaled th tion with the aid of a pocket mask equipped with a ory medical device.		
Most important symptoms/eff	ects, acute and delaye	ed		
Skin contact	Causes skin irri	tation.		
Eye contact	Not classified ba	ased on available data.		
Inhalation	May cause drov irritation of resp	vsiness and dizziness. Inhalation of vapors in high iratory system.	concentration may cause	
Ingestion		May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.		
Symptoms	Symptoms of ov	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.		
Indication of immediate medio	cal attention and spec	ial treatment needed, if necessary		
Notes to physician	Treat symptoma	Treat symptomatically.		
5. FIRE-FIGHTING MEAS	SURES			
Suitable Extinguishing Media		Carbon dioxide (CO 2). ABC powder. Foam. Cool co ater spray, fog or regular foam.	ntainers / tanks with	
Uniform Fire Code	Other Health Ha Blasting Agents Irritant: Liquid Other Health Ha	Flammable Liquid: I-A Other Health Hazard: Target Organ ToxinLiquid Blasting Agents Irritant: Liquid Other Health Hazard: CarcinogenLiquid (Note 5) Highly Toxic: Liquid		



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Special Hazard	spread along g back possible produce gases hydrocarbons,	orm explosive mixtures with air. Most vapors are he ground and collect in low or confined areas (sewers over considerable distance. Incomplete combustion s of varying toxicity such as carbon monoxide, carb aldehydes and soot. These may be highly dangere igh concentration.	s, basements, tanks). Flash n and thermolysis may on dioxide, various
Explosion Data			
Sensitivity to Mechanical Impa Sensitivity to Static Discharge			
Protective Equipment and Precautions for Firefighters	Move containe	ers from fire area if you can do it without risk.	

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General Information	Except in case of small spillages. The feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. If required, notify relevant authorities according to all applicable regulations. Evacuate non-essential personnel. For personal protection see section 8. Stop or contain leak at the source, if safe to do so. Cut off the electric power supply if this operation causes no sparks in the area containing vapors from the product. Stay upwind. In case of large spillages, alert occupants in downwind areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). In case of important spillages: risk of fire or explosion . Cover discharges with foam in order to reduce the risks of ignition. Vapours are heavier than air and may spread near ground level to sources of ignition .
Advice for non-emergency personnel	Do not touch or walk through spilled material. For personal protection see section 8. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
Advice for emergency responders	 Take all appropriate steps to avoid fire, explosion and inhalation hazards to the rescuers including the use of breathing apparatus. In case of. Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. Work gloves (preferably gauntlets) providing adequate chemical resistance. Remarks:. Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Work helmet. Antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection. A half or full-face respirator with filter(s) for organic vapours (and when applicable: for H2S). A Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.
Other information	Recommended measures are based on the most likely spillage scenarios for this material. However, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.



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		on, local experts should be consulted when necessar ions may also prescribe or limit actions to be taken.	ry.
Environmental precautions			
General Information	advised if sigr enter drains, v Prevention of Most vapors a confined area explosive con	naterial to contaminate ground water system. Local a nificant spillages cannot be contained. The product sl water courses or the soil. fire and explosion. A vapor suppressing foam may b are heavier than air. They will spread along ground a s (sewers, basements, tanks). Beware of vapors acc centrations. Vapors can accumulate in low areas. In use of the water downstream to the spillpoint. See Se pormation.	hould not be allowed to e used to reduce vapors. and collect in low or sumulating to form a case of spill in river,
Methods and material for conta	inment and cleanir	ng up	
Methods for cleaning up	containers for Contain spilla earth, diatoma local / nationa	and and bond containers when transferring material. disposal. ge, and then collect with non-combustible absorbent aceous earth, vermiculite) and place in container for a regulations (see section 13). n-sparking tools to collect absorbed material.	material, (e.g. sand,

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	 NEVER ATTEMPT TO PRIME THE CONTAINER SIPHON BY SUCKING WITH THE MOUTH. Avoid contact with skin, eyes and clothing. Prevent the formation of vapors, mists and aerosols. Take precautionary measures against static electricity. Ensure that all relevant regulations regarding explosive atmospheres, handling and storage facilities of flammable products, are followed. The inspection, cleaning and maintenance of storage containers require the application of strict procedures and must be entrusted to qualified personnel (internal or external). Ensure adequate ventilation. Vapors may form explosive mixtures with air. Do not smoke. Avoid breathing vapors or mists. Do not use compressed air for filling, discharging, or handling operations. Never pierce, drill, grind, cut, saw or weld any empty container. For personal protection see section 8.
Technical measures	Ensure adequate ventilation. WHILE MOVING THE PRODUCT:. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take all necessary precautions to prevent water from entering the containers, tanks, transfer lines etc
Prevention of fire and explosion	Keep away from open flames, hot surfaces and sources of ignition. Design installations (machinery and equipment) to prevent burning product from spreading (tanks, retention systems, interceptors (traps) in drainage systems). OPERATE ONLY ON COLD AND DEGASSED TANKS IN VENTILATED PREMISES (TO AVOID RISK OF EXPLOSION). Do



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	flammable or	essed air for filling, discharging or handling. Empty explosive vapors. Do not allow splash loading and e particularly at the beginning of the operation.	
Hygiene measures	Provide regula eyes and cloth Keep away fro area and cloth personnel exp Use personal SKIN: Wash s Remove conta	lo not eat, drink or smoke. In cleaning of equipment, work area and clothing. A ing. Wash hands before breaks and immediately a om food, drink and animal feeding stuffs. Regular cl ing is recommended. Ensure the application of stric osed to the risk of contact with the product. protective equipment as required. Avoid breathing with kin with soap and water. Iminated clothing and shoes. Gloves must be period se of wear, perforations or contaminations.	fter handling the product. eaning of equipment, work ct rules of hygiene by the vapors, mist or gas. IF ON
Conditions for safe storage, incl	uding any incomp	atibilities	
Technical measures/Storage conditions	from heat and place. Keep a feedingstuffs. reproduce all hazard labels etc made in container. Loa equipment is e splash loading the operation.	osed in a dry and cool place. Keep in properly labe sources of ignition. Keep containers tightly closed way from heat. Protect from light. Keep away from Keep in a bunded area. Keep preferably in the orig ndication of the regulation label on the new contain of the containers (even if they are empty). Use only a material suitable for use with aromatic hydrocarb ding and unloading must be carried out at ambient electrically grounded before beginning transfer oper and ensure that the product is poured slowly, part All metal parts of the mixing and processing equiprer tightly closed in a dry and well-ventilated place. Us of equipment.	in a cool, well-ventilated food, drink and animal inal container. Otherwise her. Do not remove the containers, seals, pipes, ons. Store in original temperature. Ensure all rations. Do not allow icularly at the beginning of ment must be earthed.
Packaging material	Use only contain hydrocarbons	ainers, seals, pipes, etc made in a material suitab	le for use with aromatic
Materials to Avoid	Strong oxidizi	na agents. Strong bases	

Materials to Avoid

Strong oxidizing agents. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
toluene	TWA 20 ppm	TWA: 200 ppm	IDLH: 500 ppm
108-88-3		Ceiling: 300 ppm	TWA: 100 ppm
			TWA: 375 mg/m ³
			STEL: 150 ppm
			STEL: 560 mg/m ³
ETHANOL	STEL 1000 ppm	TWA: 1000 ppm	IDLH: 3300 ppm
64-17-5		TWA: 1900 mg/m ³	TWA: 1000 ppm
		_	TWA: 1900 mg/m ³
2-ethoxy-2-methylpropane	TWA 25 ppm	-	
637-92-3			



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Other constituents required for disclosure

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
isopentane 78-78-4	TWA 1000 ppm	-	
Pentane 109-66-0	TWA 1000 ppm	TWA: 1000 ppm TWA: 2950 mg/m³	IDLH: 1500 ppm TWA: 120 ppm TWA: 350 mg/m ³ Ceiling: 610 ppm Ceiling: 1800 mg/m ³
n-Hexane 110-54-3	S* TWA 50 ppm	TWA: 500 ppm TWA: 1800 mg/m ³	IDLH: 1100 ppm TWA: 50 ppm TWA: 180 mg/m ³
xylene 1330-20-7	STEL 150 ppm TWA 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³	
Benzene 71-43-2	S* STEL 2.5 ppm TWA 0.5 ppm	TWA: 10 ppm TWA: 1 ppm Ceiling: 25 ppm STEL: 5 ppm	IDLH: 500 ppm TWA: 0.1 ppm STEL: 1 ppm

Biological standards

Chemical Name	ACGIH
toluene 108-88-3	Toluene in blood 0.02 mg/L -prior to last shift of workweek Toluene in urine 0.03 mg/L -end of shift o-Cresol with hydrolysis in urine 0.3 mg/g creatinine -end of shift

Chemical Name	ACGIH
n-Hexane	2,5-Hexanedione without hydrolysis in urine 0.4 mg/L -end of shift at end
110-54-3	of workweek
xylene	Methylhippuric acids in urine 1.5 g/g creatinine -end of shift
1330-20-7	
Benzene	S-Phenylmercapturic acid in urine 25 µg/g creatinine -end of shift
71-43-2	t,t-Muconic acid in urine 500 µg/g creatinine -end of shift

Exposure controls

Engineering MeasuresEnsure adequate ventilation. Apply technical measures to comply with the occupational
exposure limits.
When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of
air suitable for breathing and wear the recommended equipment. Do not enter empty
storage tanks until measurements of available oxygen have been carried out.Individual protection measures, such as personal protective equipmentGeneral InformationProtective engineering solutions should be implemented and in use before personal

al information	Protective engineering solutions should be implemented and in use before personal
	protective equipment is considered.

Eye/face protection If splashes are likely to occur, wear:. Safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing. Protective shoes or boots.

Hand ProtectionHydrocarbon-proof gloves for aromatic hydrocarbons. Please observe the instructions
regarding permeability and breakthrough time which are provided by the supplier of the
gloves. Also take into consideration the specific local conditions under which the product is



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	used, such a	s the danger of cuts, abrasion, and the contact time.		
Respiratory protection	respiratory pr required for h	mits are exceeded or irritation is experienced, NIOSH/M otection should be worn. Positive-pressure supplied ai igh airborne contaminant concentrations. Respiratory ccordance with current local regulations.	r respirators may be	
Hygiene measures	Provide regul eyes and clot Keep away fr area and clot personnel ex Use personal SKIN: Wash Remove cont	do not eat, drink or smoke. ar cleaning of equipment, work area and clothing. Avoid hing. Wash hands before breaks and immediately after om food, drink and animal feeding stuffs. Regular clear hing is recommended. Ensure the application of strict re posed to the risk of contact with the product. I protective equipment as required. Avoid breathing vap skin with soap and water. aminated clothing and shoes. Gloves must be periodic ase of wear, perforations or contaminations.	handling the product. hing of equipment, work ules of hygiene by the hors, mist or gas. IF ON	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Color Physical State @20°C Odor Odor Threshold		colorless liquid Petroleum distillates No information available	
<u>Property</u> pH Melting point/range	Values_	<u>Remarks</u> Not applicable Not applicable	<u>Method</u>
Boiling point/boiling range	36 - 125 °C 97 - 257 °F		ISO 3405 ISO 3405
Flash point	<= -30 °C <= -22 °F		ASTM D 93 ASTM D 93.
Evaporation rate Flammability Limits in Air	> 1	EtEt=1 No information available	
Vapor Pressure Vapor density Relative density	590 hPa > 1 0.75	@ 37.8 °C (Air = 1)	ISO 13016-1
Relative density Density Water solubility Solubility in other solvents logPow	0.75 755 kg/m ³	@ 15 °C slightly soluble Soluble in hydrocarbons Not applicable	ISO 12185
Autoignition temperature	> 230 °C > 446 °F		
Decomposition temperature		Not applicable	



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10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks. Take precautionary measures against static discharges. Heating in air.
Incompatible materials	Strong oxidizing agents. Strong bases.
Hazardous Decomposition Products None under normal use. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Carbon oxides.	

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principle Routes of Exposure	Inhalation, Ingestion, Eye contact, Skin contact.	
Symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.	
Skin contact	Causes skin irritation.	
Eye contact	Not classified based on available data.	
Inhalation	May cause drowsiness and dizziness. Inhalation of vapors in high concentration may cause irritation of respiratory system.	
Ingestion	May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.	

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity - Product Information

Product Information Product does not present an acute toxicity hazard based on known or supplied information.



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Oral	Not classified based on available data
ATEmix (oral)	15796 mg/kg
Dermal ATEmix (dermal)	Not classified based on available data 33019 mg/kg
Inhalation	Not classified based on available data ppm
ATEmix (inhalation-dust/mist)	33 mg/l
ATEmix (inhalation-vapor)	58 mg/l

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
toluene 108-88-3	5580 mg/kg bw (rat)	> 5000 mg/kg bw (rabbit)	28.1 mg/L (Rat-vapour) 4h
Naphtha (petroleum), full-range alkylate, butane-contg. 68527-27-5	LD50 > 5000 mg/kg bw (rat - OECD TG 401)	LD50 > 2000 mg/kg bw (rabbit - OECD TG 402 - under occlusive conditions)	LC50 (4h) > 5610 mg/m³ air (vapor) (rat - OECD 403)
ETHANOL 64-17-5	LD50 10470 mg/kg (Rat)	LD50 15800 mg/kg (Rabbit)	LC50 30000 mg/m ³
hydrocarbons, C6, isoalkanes, <5% n-hexane ^	LD50 >16750 mg/kg (rat - OECD 401)	LD50 >3350 mg/kg (rabbit - OECD 402)	LC50 (4h) 73860 ppm (rat - vapour - OECD 403) LC50 (4h) 259354 mg/m ³ (rat - vapour - OECD 403)
2-ethoxy-2-methylpropane 637-92-3	LD50 > 2003 mg/kg bw (rat - OECD 401)	LD50 > 2000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5.88 mg/l (Rat- vapour - OECD 203)
hexene 25264-93-1	LD50 2000 - 10000 mg/kg bw (rat - OECD 420)	LD50 > 2000 mg/kg bw (rat - OECD 402)	
Hydrocarbons, C5-rich 68476-55-1	LD50 >2000 mg/kg bw (rat Wistar male/female) (OECD Guideline 401)		

Skin corrosion/irritation Serious eye damage/eye irritation Sensitization Carcinogenicity Irritating to skin. Not classified based on available data. Not classified based on available data. May cause cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
ETHANOL	A3	1		Х
64-17-5				

Other constituents required for disclosure .

	IANC	NTP	OSHA
Benzene A1	1	Known	Х
71-43-2			

Legend:

ACGIH: (American Conference of Governmental Industrial Hygienists) A1 - Known Human Carcinogen

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer) Group 1 - Carcinogenic to Humans

NTP: (National Toxicity Program) Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration) X - Present



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Mutagenicity	May cause genetic defects.
Germ Cell Mutagenicity	Contains substance(s) listed as mutagen.
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Target Organ Effects (STOT)	No information available.
STOT - single exposure	May cause drowsiness or dizziness.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Neurological effects	No information available.
Other adverse effects	No information available.
Aspiration hazard	May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

Acute aquatic toxicity - Product Information

No experimental data available

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to microorganisms
toluene	EC50 (3 h) 134 mg/l	LC50 (96h) 5.5 mg/l	EC50 (48h) 3.78mg/l	-
108-88-3	Chlorella vulgaris	Oncorhynchus kisutch	Daphnia magna	
Naphtha (petroleum),	EL50(72h) 3.1 mg/l	LL50(96h) 8.2 mg/l	EL50(48h) 4.5 mg/l (Daphnia	
full-range alkylate,	(Selenastrum	(Pimephales promelas)	magna - OECD 202)	
butane-contg.	capricornutum/Pseudokirchn			
68527-27-5	erella subcapitata - OECD 201)			
ETHANOL	EC50 (72h) 275 mg/l	LC50 (96h) 14200 mg/l	EC50 (48h) 5012 mg/l	EC50 = 34634 mg/L 30 min
64-17-5	Chlorella vugaris (OECD	Pimephales Promelas (EPA	Ceriodaphnia dubia (ASTM	EC50 = 35470 mg/L 5 min
	201))	E729-80)	
hydrocarbons, C6,	EC50r (72h) 55 mg/l	LC50 (96h) 18.27 mg/l	EC50 (48h) 3.87 mg/l	
isoalkanes, <5% n-hexane	(Pseudokirchneriella	(Oncorhynchus mykiss)	(Daphnia magna)	
^	subcapitata)		EL50 (48h) 31.9 mg/l	
			(Daphnia magna)	
hexene	EC50(72h) 0.00093 - 1.8	LC50(96h) 0.0034 - 6.6 mg/l	EC50(48h) 0.0028 - 4.400	EC50(3h) 1 g/l
25264-93-1	mg/l (Pseudokirchneriella	(Oncorhynchus mykiss -	mg/l (Daphnia magna -	
	subcapitata - OECD 201)	OECD 203)	OECD 202)	
Hydrocarbons, C5-rich	EC50(72h) 12.4 mg/l	LC50(96h) 8.41 mg/l	EC50(48h) 4.7 mg/l	
68476-55-1	(Pseudokirchnerella subcapitata)	(Oncorhynchus mykiss)	(Daphnia magna)	

Chronic aquatic toxicity - Product Information

No experimental data available

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
toluene	NOEC(72h) 10 mg/l	NOEC (7d) 0.74 mg/l	NOEC (40d) 1.39 mg/l	



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108-88-3	Skeletonema costatuM	(Ceriodaphnia dubia)	(Oncorhynchus kisutch)	
		EC50 (7d) 3.23 mg/l	LOEC (40d) 2.77 mg/l	
		(Ceriodaphnia dubia)	(Oncorhynchus kisutch)	
		LOEC (7d) 2.76 mg/l	, , ,	
		(Ceriodaphnia dubia)		
Naphtha (petroleum),	NOELR(96h) 51 mg/l (based			
full-range alkylate,	on cell density -			
butane-contg.	Pseudokirchnerella			
68527-27-5	subcapitata)			
ETHANOL		NOEC (10d) 9.6 mg/l	NOEC (30d) 245 mg/l	
64-17-5		Ceriodaphnia dubia	(ECOSAR)	
hydrocarbons, C6,	NOELR (72h) 3.034 mg/l	NOELR (21d) 7.138 mg/l	NOELR (28d) 4.089 mg/l	
isoalkanes, <5% n-hexane	(Pseudokirchneriella	(Daphnia magna)	(Oncorhynchus mykiss)	
^	subcapitata)		· · · · · ·	
hexene		NOEC(21d) 0.0194 mg/l		
25264-93-1		(Daphnia magna - OECD		
		211)		

Effects on terrestrial organisms

No information available.

Persistence and degradability

General Information

No information available.

Bioaccumulative potential

Product Information No information available.

logPow

Not applicable

.

Component Information

Chemical Name	log Pow
toluene	2.73
108-88-3	
ETHANOL	-0.35
64-17-5	
hydrocarbons, C6, isoalkanes, <5% n-hexane	3.6
٨	
Hydrocarbons, C5-rich	2.2-5 à 23°C
68476-55-1	

<u>Mobility</u>

Soil	Given its physical and chemical characteristics, the product is generally mobile in the ground It may contaminate ground water.
Air Water	The product evaporates in the air and dissipates more or less depending on local conditions. However, it may stagnate in pools in low-lying areas, in an undisturbed or confined atmosphere. The product spreads on the surface of the water. A small amount may solubilise in water.
Other adverse effects	
General Information	No information available



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13. DISPOSAL CONSIDERATIONS

Waste treatment

SDS #: 089539

Waste Disposal Methods	Dispose of in accordance with local regulations. Should not be released into the environment. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
Contaminated packaging	Empty containers may contain flammable or explosive vapors. Do not burn, or use a cutting torch on, the empty drum. Empty containers should be taken to an approved waste handling site for recycling or disposal.
US EPA Waste Number	D001

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
xylene		Included in waste stream:		ignitable waste
1330-20-7		F039		_
Benzene	U019	Included in waste streams:	0.5 mg/L regulatory level	ignitable waste, toxic waste
71-43-2		F005, F024, F025, F037,		
		F038, F039, K085, K104,		
		K105, K141, K142, K143,		
		K144, K145, K147, K151,		
		K159, K169, K171, K172		

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status	
toluene	Toxic	
108-88-3	Ignitable	
ETHANOL	Toxic	
64-17-5	Ignitable	

Other constituents required for disclosure .

Chemical Name	California Hazardous Waste Status
isopentane 78-78-4	Ignitable
Pentane	Toxic
109-66-0	Ignitable
oct-1-ene	Toxic
111-66-0	Ignitable
n-Hexane	Toxic
110-54-3	Ignitable
xylene	Toxic
1330-20-7	Ignitable
Benzene	Toxic
71-43-2	Ignitable

14. TRANSPORT INFORMATION



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DOT UN/ID No Proper shipping name Hazard class Packing Group Reportable Quantity (RQ) Special Provisions Description Emergency Response Guide Number	UN1203 GASOLINE 3 II (toluene: RQ (kg)= 454.00) 144, 177, B1, B33, IB2, T8, T4 UN1203, GASOLINE, 3, II 128
Special Provisions	243
ICAO/IATA UN/ID No Proper shipping name Hazard class Packing Group ERG Code Special Provisions Description Excepted Quantity Limited quantity	UN1203 Gasoline 3 II 3H A100 UN1203, Gasoline, 3, II E2 1 L
IMDG/IMO UN/ID No Proper shipping name Hazard class Packing Group EmS No. Special Provisions Marine pollutant Description Excepted Quantity Limited quantity	UN1203 GASOLINE 3 II F-E, S-E 243 Yes UN1203, GASOLINE, 3, II, (-30°C C.C.), MARINE POLLUTANT E2 1 L
ADR/RID UN/ID No Proper shipping name Hazard class Packing Group Classification Code Tunnel Restriction Code Special Provisions Description Limited quantity ADR/RID-Labels Environmental hazard	UN1203 GASOLINE 3 II F1 (D/E) 243, 534, 664 UN1203, GASOLINE, 3, II, (D/E), Environmentally hazardous 1 L 3 Yes



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15. REGULATORY INFORMATION

International Inventories

All the substances contained in this product are listed or exempted from listing in the following inventories: Europe (EINECS/ELINCS/NLP) U.S.A. (TSCA) Japan (ENCS)

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
toluene	108-88-3	31.33	1.0

Other constituents required for disclosure

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
n-Hexane	110-54-3	0.1 - 1	1.0
xylene	1330-20-7	0.1 - 1	1.0
Benzene	71-43-2	0.1 - 1	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
toluene 108-88-3	1000 lb	Х	X	Х

Other constituents required for disclosure .

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
xylene 1330-20-7(0.1 - 1)	100 lb			Х
Benzene 71-43-2 (0.1 - 1)	10 lb	X	Х	Х

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:

onemidar Mane OHO NO Meight // MAR O data VOO onemidais Oldss I Ozone Oldss Z Ozone	Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone	Class 2 Ozone
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				Depletors	Depletors
toluene	108-88-3	25 - 50	Group I		

Other constituents required for disclosure .

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
oct-1-ene	111-66-0	1 - 2.5		Group I		
n-Hexane	110-54-3	0.1 - 1		Group V		
xylene	1330-20-7	0.1 - 1		Group I		
Benzene	71-43-2	0.1 - 1		Group I		

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
toluene	1000 lb	

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	Weight %	California Prop. 65
toluene - 108-88-3	30.76217	Developmental
Naphthalene - 91-20-3	0.0000312	Carcinogen

Other constituents required for disclosure .

Chemical Name	Weight %	California Prop. 65
n-Hexane - 110-54-3	0.1 - 1	Male Reproductive
Benzene - 71-43-2	0.1 - 1	Carcinogen
		Developmental
		Male Reproductive

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois
toluene 108-88-3	Х	Х	Х	X
ETHANOL 64-17-5	Х	Х	Х	
2-ethoxy-2-methylpropane 637-92-3		Х		

Other constituents required for disclosure .

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois
isopentane	Х	Х	Х	
78-78-4				
Pentane	X	Х	X	
109-66-0				
oct-1-ene	X		Х	
111-66-0				



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n-Hexane 110-54-3	Х	Х	Х	Х
xylene 1330-20-7	Х	Х	Х	Х
Benzene 71-43-2	Х	Х	Х	Х

Component	Hazardous Substances RQs	Extremely Hazardous Substances RQs
toluene	1000 lb	
108-88-3 (25 - 50)		

16. OTHER INFORMATION						
NFPA HMIS_	Health Hazard 2 Health Hazard 2*	Flammability 4 Flammability 4	Instability 0 Physical Hazard 0	Special hazards $*$ Personal protection X		
	erial Information System)	9 4 rating, 0 meaning no h	nazard and 4 meaning high t	hazard		
bw = body weight bw/day = body weight/ EC x = Effect Concent GLP = Good Laborator IARC = International A LC50 = 50% Lethal co half) of a group of test LD50 = 50% Lethal Do LL = Lethal Loading NIOSH = National Inst NOAEL = No Observed NOEC = No Observed NOEL = No Observed OECD = Organization OSHA = Occupational UVCB = Substance of Legend Section 8 ACGIH - American Co OSHA - Occupational NIOSH - National Insti TLV - Threshold Limit PEL - Permissible Exp	yms onference of Governmental day ration associated with x% r ry Practice gency for Research of Car ncentration - Concentration animals ose - Chemical amount, giv itute of Occupational Safet d Adverse Effect Level Effect Concentration Effect Level for Economic Co-operation Safety and Health Adminis unknown or Variable comp onference of Governmental Safety and Health Adminis tute for Occupational Safet Values osure Limits angerous to Life or Health of verage posure Limits	ections updated 15 Industrial Hygienists response of a chemical in air or a en at once, which causes y and Health and Development stration position, Complex reactio Industrial Hygienists tration y and Health	chemical in water which cau the death of 50% (one half) of a group of test animals erial		
				Version GNAM		



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This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the Safety Data Sheet