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

1.1 Product identifier

Sales No.	:	6030003 IRISONE ALPHA
Substance name	:	4-(2,6,6-TRIMETHYL-2-CYCLOHEXEN-1-YL)-3-BUTEN-2-ONE (MAIN COMPONENT)
Identifier		
CAS-No.	:	127-41-3 8013-90-9
EC-No.	:	204-841-6
	:	232-396-8
Formula	:	C13-H20-O
REACH Registration Number	:	01-2120138061-71

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

Intended Use Fragrances	:	Perfumery or flavor ingredient

1.3 Details of the supplier of the safety data sheet

Company	:	Givaudan Suisse SA Chemin de la Parfumerie 5 CH-1214 VERNIER
Telephone	:	+41227809111
Telefax	:	+41227809150
E-mail address Responsible/issuing person	:	global.sds_info@givaudan.com
Legal Entity	:	Givaudan France SAS 55 Voie des Bans F-95102 ARGENTEUIL

1.4 Emergency telephone number

Givaudan 24/7 call	:	+33172110003

Please refer to section 16 for a full list of emergency phone numbers, from Givaudan's 24/7 provider.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements	:	H412	Harmful to aquatic life with long lasting effects.
Precautionary statements	:	**Prevention:**	
		P273	Avoid release to the environment.
		Disposal:	
		P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

Hazards not Otherwise Classified. : None

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	CAS-No. EC-No. REACH Registration Number	Concentration [Percent by weight]	M-Factor, SCL, ATE
4-(2,6,6-trimethylcyclohex-	127-41-3	>= 90 - <= 100	Acute toxicity

2-ene-1-yl)-but-3-ene-2-one	8013-90-9 204-841-6 232-396-8 01-2120138061-71		estimate Acute oral toxicity:4 590,00 mg/kg
(3E)-4-(2,2-Dimethyl-6-methylenecyclohexyl)but-3-en-2-one	79-76-5 201-223-8	>= 1 - < 2,5	Acute toxicity estimate Acute oral toxicity:3 490 mg/kg

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Immediately seek medical attention if chemical entered ear canal.

In case of eye contact : Protect unharmed eye.
Remove contact lenses.
If eye irritation persists, consult a specialist.

If swallowed : Immediately consult Poison Control Center or physician.
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : no data available
Risks : no data available

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	:	no data available

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. Material can create slippery conditions.

6.2 Environmental precautions

Environmental precautions	:	Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	:	Clean contaminated floors and objects thoroughly while observing environmental regulations. Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Not applicable

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Temperature class	:	no data available
Fire-fighting class	:	no data available
Dust explosion class	:	no data available

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.
Further information on storage conditions	:	Store Ambient 10-30℃ (50-85℉) Dry, well ventilated, preferably full, hermetically sealed
Advice on common storage	:	Protect against light.
Storage class (TRGS 510)	:	10 Combustible liquids
Other data	:	No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s)	:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Exposure assessment: Exposures are dependent on the product being handled, the potential for chemical release, and any resulting airborne concentrations or dermal contact. Since product handling and release scenarios vary, and no two workplaces are exactly alike, it is recommended that the potential for exposure be assessed prior to the prod-uct's use or introduction. Exposure assessments should be performed by an occupational hygienist, industrial hygienist, or other qualified occupational or environmental health professional. An exposure assessment should be conducted to determine the efficacy of any ventilation and the need for additional PPE. The PPE indicated below are recommendations for worst-case scenario exposures. An exposure

assessment will identify more applicable measures to be implemented. EN and ANSI standards are mentioned in the following recommendations, consult equivalent local standards when required.
PPE is always the last resort to avoid exposure. In any case technical and organisational measures have to be explored and used prior to the selection of PPE. The PPE selection is for operators trained to work with chemicals according to good industrial hygiene and safety practice. Operators have to be trained on the use of PPE.

8.2.1 Engineering measures

Use engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use the product only with adequate ventilation.

8.2.2 Personal protective equipment

Eye/face protection	:	Use safety goggles tested according to EN 166/ ANSI Z87.1 or equivalent local standard.
Hand protection	:	Use gloves when handling substance in open systems. Inspect gloves prior to use. Train operators for proper use.If only incidental exposure is expected: (work without direct contact to substance) use gloves tested according EN 16523-1/ASTM F739 or equivalent local standard breakthrough times at least 10 minutes, tested for chemicals indicated in chapter 3 of this SDS. Change gloves frequently. If direct skin contact is expected: use gloves tested according to EN 16523-1/ASTM F739 or equivalent local standard, tested for chemicals indicated in chapter 3 of this SDS. Permeation time must exceed contact time.
Other skin protection	:	Wear working clothes covering arms and legs.
Respiratory protection	:	Respiratory protection should be worn when workplace exposures exceed exposure limit requirements or guidelines. If there are no applicable exposure limits or guidelines, use an approved respirator where there is a potential for adverse effects, including but not limited to respiratory irritation or odor, or where indicated by the exposure assessment. Selection of air-purifying or positive-pressure supplied-air will depend on the results of the exposure assessment which includes an evaluation of the specific operations and the potential airborne concentrations. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In case a risk analysis proved the cartridge respirator as acceptable, use type: ABEK-P3 (EN 14387) OR Combination Multi-gas/P100

(42CFR84.193; ANSI Z88.7 or equivalent local standard) as a backup to engineering controls.

In absence of engineering controls, use self-contained breathing apparatus or full face supplied air respirators. Use respirators and components tested and approved under appropriate government standards such as CEN (EU) or NIOSH 42 CFR 84(US).

Thermal hazards : Wear appropriate thermal protective clothing, when necessary.

Hygiene measures : Remove contaminated clothing and protective equipment before entering eating areas.
Do not eat, drink or smoke during work.
Wash hands any time after handling the product.

8.2.3 Environmental exposure controls

General advice : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Form	:	Liquid low-medium viscosity, clear-almost clear
Colour	:	colorless to Pale yellow
Taste	:	not determined
Odour	:	Floral, Violet-like, Orris-like, fruity
Odour Threshold	:	1,28 ng/l
Flash point	:	117 ℃ Method: Grabner miniflash closed cup
Lower explosion limit	:	not determined
Upper explosion limit	:	not determined
Flammability	:	no data available
Particle size	:	no data available
Oxidizing properties	:	no data available
Auto-ignition temperature	:	270 ℃
Decomposition temperature	:	no data available
Molecular weight	:	192,30 g/mol
pH	:	4,55 at 10,00 g/l
Melting point	:	not determined
Boiling point	:	237 ℃ at 1 013 hPa
Vapour pressure	:	0,0013 hPa at 20 ℃
Density	:	929,32 kg/m3 at 20 ℃

Bulk density	:	Not applicable
Water solubility	:	110 mg/l
Solubility/qualitative	:	insoluble
Partition coefficient: n-octanol/water	:	log Pow: 4,1 Method: OECD Test Guideline 117
Viscosity, kinematic	:	no data available
Relative vapour density	:	no data available
Evaporation rate	:	no data available
Explosive properties	:	no data available

9.2 Other information

Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Stable under recommended storage conditions., No hazards to be specially mentioned.No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid	:	no data available

10.5 Incompatible materials

Materials to avoid	:	Not applicable

10.6 Hazardous decomposition products

Hazardous decomposition products	:	no data available
Thermal decomposition	:	no data available

SECTION 11: Toxicological information

Acute toxicity

Acute oral toxicity : LD50 Rat
Dose: 4 590 mg/kg

Acute inhalation toxicity : This information is not available.

Acute dermal toxicity : This information is not available.

Acute toxicity (other routes of administration) : No data is available on the product itself.

Skin corrosion/irritation Skin irritation : No data is available on the product itself.

Serious eye damage/eye irritation

Eye irritation : No data is available on the product itself.

Respiratory or skin sensitisation

Sensitisation : Skin sensitization Guinea pig
Result: Not sensitizing

HRIPT Human
Result: Not sensitizing
at 8 % in Petrolatum

Germ cell mutagenicity

Genotoxicity in vitro : Ames test
negative

Carcinogenicity

Carcinogenicity : No data is available on the product itself.

Reproductive toxicity

Not classified due to lack of data.

Target Organ Systemic Toxicant - Single exposure

Target Organ Systemic Toxicant - Single exposure : No data is available on the product itself.

Target Organ Systemic Toxicant - Repeated exposure

Target Organ Systemic Toxicant - Repeated exposure	:	No data is available on the product itself.

Aspiration hazard

Aspiration toxicity	:	No data is available on the product itself.

Phototoxicity

Phototoxicity	:	No data is available on the product itself.
Further information	:	no data available

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

Remarks	:	no data available

SECTION 12: Ecological information

12.1 Toxicity

no data available

12.2 Persistence and degradability

Product:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 74 % Exposure time: 28 d Method: OECD Test Guideline 301 B GLP: yes

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Dispose of in accordance with local, state and federal regulations.

Dispose of in accordance with local regulations.

SECTION 14: Transport information

14.1 UN number

N/A

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

N/A

14.4 Packing group

N/A

14.5 Environmental hazards

N/A

14.6 Special precautions for user

IMDG

IMDG Code Segregation Group : None

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 3 Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Neither banned nor restricted
REACH - List of substances subject to authorisation (Annex XIV)	:	Neither banned nor restricted
Major Accident Hazard Legislation	:	Not applicable
Water hazard class (Germany)	:	WGK 2 obviously hazardous to water Classification according to AwSV, Annex 1 (5.2)

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full list of Emergency response numbers worldwide.

Region	Country	Phone Number	Region	Country	Phone Number
Global	Global	+1 215 207 0061	Europe	Czech replublic	+420 228 882 830
Americas	All Americas	+1 215 207 0061		Finland	+358 9 7479 0199
	United States	+1 866 928 0789		Switzerland	+33 1 72 11 00 03 +49 89 220 61012
	Canada	+1 800 579 7421	Middle East/Africa	All Middle East/Africa	+44 1235 239671
	Mexico	+52 55 5004 8763		Middle East	+44 1273 289454
	Brazil	+55 11 3197 5891	APAC	All Asia-Pacific	+65 3158 1074
	Chile	+56 2 2582 9336		Sri Lanka	+65 3158 1195
	Colombia	+57 601 508 7337		Taiwan	+886 2 8793 3212
	Argentina	+54 11 5984 3690		Japan	+81 50 5057 7850
Europe	All Europe	+44 1235 239670		Indonesia	007 803 011 0293
	France	+33 1 72 11 00 03		Malaysia	+60 3 6207 4347
	Germany	0800 000 7801		Thailand	001 800 120 666 751
	Spain	+34 91 114 2520		India	000 800 100 7479
	Italy	800 699 792		Pakistan	+65 3158 1329
	Netherlands	+31 10 713 8195		Bangladesh	+65 3158 1200
	Turkey	0800 621 2139		Philippines	+63 2 8231 2149
	Norway	+47 2103 4452		Vietnam	+84 28 4458 2388
	Greece	+30 21 1198 3182		Korea	+65 3158 1285
	Portugal	+351 30880 4750		South Korea	+82 2 3479 8401
	Denmark	+45 8988 2286		Australia	1800 074 234
	Sweden	+46 8 566 42573		New Zealand	0800 446 881
	Poland	+48 22 307 3690		China	0532 8388 9090

Administrative information:
Report Information: SDS_EU/EN/GHS_SDS_EU_REGION/43
Sales & Distribution Information: VE01/FR/CH11/01
Shipping Order Information: 38 046 649/35 758 544

Key or legend to abbreviations and acronyms used in the safety data sheet

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GB EH40 - Great Britain Environmental Hygiene; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; NOM-010-STPS - Official Mexican Standard, Ministry of Labor and Social Welfare; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Information displayed in section 3 (Composition/information on ingredients) is additional information to understand the hazards of the product and ensure safe handling, storage and transportation. This information, including CAS numbers, is not meant to be used for registration, notification or any other purposes. Any additional information and documentation needed may be provided by Givaudan.

Administrative information:
Report Information: SDS_EU/EN/GHS_SDS_EU_REGION/43
Sales & Distribution Information: VE01/FR/CH11/01
Shipping Order Information: 38 046 649/35 758 544