Godrej Industries Limited

Registered office: Godrej one Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8063 / 2518 8065
e-mail: rv.dubhashi@godrejinds.com

1 Identification

· **Trade name: Ginol 16 (95 %) (Cetyl Alcohol) (Hexadecan 1 Ol)**
Chemical Name: Hexadeca 1_ol
· **CAS Number:**
36653-82-4
· **EC number:**
253-149-0
· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture**
*Synthetic intermediate
*Coatings
*Metalworking fluids/rolling oils
*Mining/offshore - Mining chemicals
*Process chemical e.g. in Paper and Textiles industries
*Personal care
*Use in cleaning agents
*Other consumer uses (pharmaceuticals and personal care)
*Plaster/cement - Use as binders and release agents / Road and construction applications
*Plastic/rubber - Polymer processing

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Godrej Industries Limited,
Plot No 3, Village Kanerao,
Taluka Valia, District Bharuch, Gujarat, India.
Pin: 393135
Telephone:02643 270756 / 57 / 58 / 59 / 60
Fax:91-2643 270018

· **Information department:**
Mr RV Dubhashi, Email: rv.dubhashi@godrejinds.com
Tel No.: 022-25194768
Telephone number of EU importer:
Opening hours: (08.30 –17.00 hours GMT +5.5 hours) Other Comments
Other Comments (e.g. language(s) of the phone service): English

2 Hazard(s) identification

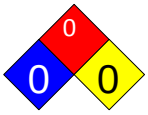
· **Classification of the substance or mixture**
The substance is not classified according to the Globally Harmonized System (GHS).

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
· **Information concerning particular hazards for human and environment:** Not applicable.

· **Label elements**

· **Labelling according to EU guidelines:** Observe the general safety regulations when handling chemicals.

· **Safety phrases:** Not applicable
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

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· ***HMIS-ratings (scale 0 - 4)***

Health = 0
Fire = 0
Reactivity = 0

· ***Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not a PBT substance.*
· ***vPvB:*** *Not a vPvB substance.*

3 Composition/information on ingredients

· ***Chemical characterization: Substances***
· ***CAS No. Description***
36653-82-4 (Hexadecan-1-ol)
· ***Identification number(s)***
· ***EC number:*** *253-149-0*
· ***Additonal information:***
Molecular Formula : C16H34O
Molecular Weight : 242.45 g/mol
· ***Composition –Cetyl alcohol min. 95%***

4 First-aid measures

· ***Description of first aid measures***
· ***General information:***
If you feel unwell, seek medical advice (show the label where possible). Take off all contaminated clothing immediately.
· ***After inhalation:***
Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician
· ***After skin contact:*** *Wash off with plenty of soap and water*
· ***After eye contact:*** *Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.*
· ***After swallowing:***
Wash the affected person's mouth with plenty of water, provided he is conscious. Call a doctor.
· ***Most important symptoms and effects, both acute and delayed*** *No further relevant information available.*
· ***Information for doctor:*** *Treat symptomatically and supportively.*
· ***Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

5 Fire-fighting measures

· ***Extinguishing media***
· ***Suitable extinguishing agents:*** *Water spray, Dry powder, Foam, Carbon dioxide (CO2)*
· ***Special hazards arising from the substance or mixture*** *No further relevant information available.*
· ***Advice for firefighters***
Wear breathing apparatus and fully protective clothing to prevent contact with skin and eyes.
· ***Protective equipment:***
Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary
· ***Additional information***
Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings remove movable

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6 Accidental release measures

· ***Personal precautions, protective equipment and emergency procedures***
Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves
· ***Environmental precautions:***
Do not allow product into drain or water course
Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.
· ***Methods and material for containment and cleaning up:***
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust.
Ventilate area and wash spill site after material pickup is complete.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
· ***Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· ***Precautions for safe handling***
Handle in accordance with good hygiene and safety procedures.
Wear respirator, chemical safety goggles,rubber boots and heavy rubber gloves.
Do not breathe dust, and avoid contact with eyes, skin and clothing.
Avoid prolonged or repeated exposure and wash thoroughly after handling.
· ***Information about protection against explosions and fires:*** *Protect from sources of heat, ignition and flame*

· ***Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
Keep container closed and store in a cool, dry place. Suitable storage material: SS tank / Laquor-lined MS drums / HDPE-laminated bags with liners
· ***Information about storage in one common storage facility:***
Keep container closed and store in a cool, dry place.
· ***Further information about storage conditions:***
Suitable storage material: SS tank / Laquor-lined MS drums / HDPE-laminated bags with liners
· ***Specific end use(s)***
**Synthetic intermediate*
**Coatings*
**Metalworking fluids/rolling oils*
**Mining/offshore - Mining chemicals*
**Process chemical e.g. in Paper and Textiles industries*
**Personal care*
**Use in cleaning agents*
**Other consumer uses (pharmaceuticals and personal care)*
**Plaster/cement - Use as binders and release agents / Road and construction applications*
**Plastic/rubber - Polymer processing*
**Agrochemicals*

8 Exposure controls/personal protection

· ***Control parameters***
· ***Components with limit values that require monitoring at the workplace:*** *Not required.*

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· ***Ingredients with biological limit values:***

36653-82-4 hexadecan-1-ol

· ***Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Observe the usual precautions for handling chemicals.
Do not eat or drink while working.
Do not store food in the working area.
Store protective clothing separately.
Wash hands before breaks and at the end of work.
· ***Breathing equipment:***
1)Use NIOSH- / MSHA-approved respirator.
2)In an emergency respiratory protection must be worn. Consider the maximum period for wear.
Respiratory protection: Particle filter P2 or P3, colour code white
· ***Protection of hands:***
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Skin protection cremes do not protect as effectively against the substance as protective gloves.
Therefore suitable protective gloves should be preferred as far as possible.
· ***Material of gloves***
Polychloroprene - CR (0,5 mm)
Nitrile rubber/Nitrile latex - NBR (0,35 mm)
Butyl rubber - Butyl (0,5 mm)
Fluoro carbon rubber - FKM (0,4 mm)
Polyvinyl chloride - PVC (0,5 mm)
· ***Penetration time of glove material***
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· ***Eye protection:*** *Safety glasses*
· ***Body protection:*** *Suitable protective clothing - long sleeve shirts and trousers.*

9 Physical and chemical properties

· ***Information on basic physical and chemical properties***	
· ***General Information***	
· ***Appearance:***	
Form:	*White flakes/Pastilles (clear liquid when melted)*
Color:	*Colourless*
· ***Odor:***	*Odorless*
· ***Change in condition***	
Melting point/Melting range:	*51 °C (124 °F)*
Boiling point/Boiling range:	*305 °C to 330 °C (581 °C to 626 °F)*
· ***Flash point:***	*Ca 180 °C (Ca 356 °F)*
· ***Flammability (solid, gaseous):***	*Product is not flammable.*
· ***Ignition temperature:***	*250 °C (482 °F)*
· ***Auto igniting:***	*Product is not selfigniting.*
· ***Danger of explosion:***	*Product does not present an explosion hazard.*
· ***Explosion limits:***	
Lower:	*1 Vol %*

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Trade name: Ginol 16 (95 %) (Cetyl Alcohol) (Hexadecan 1 Ol)

Upper:	*8 Vol %*
· ***Vapor pressure at 38 °C (100 °F):***	*0.0021 mmHg hPa (0 mmHg mm Hg)*
· ***Density at 60 °C (140 °F):***	*0.81*
· ***Vapour density***	*Not applicable.*
· ***Solubility in / Miscibility with Water at 23 °C (73 °F):***	*<1 mg/l*
· ***Partition coefficient (n-octanol/water):***	*6.7 log POW*
· ***Viscosity:***	
Dynamic at 100 °C (212 °F):	*3.394 mm²/s*
· ***Other information***	*No further relevant information available.*

10 Stability and reactivity

· ***Reactivity***
· ***Chemical stability*** *Product is chemically stable.*
Possibility of hazardous reactions *No dangerous reactions known.*
· ***Conditions to avoid***
Avoid contact with incompatible materials.
Avoid formation of dust.
· ***Incompatible materials:*** *Strong acids and oxidising agents*
· ***Hazardous decomposition products:*** *Carbon monoxide and carbon dioxide*
· ***Additional information:*** *Thermal decomposition: > 350 °C*

11 Toxicological information

· ***Information on toxicological effects***
· ***Acute toxicity:***

· ***LD/LC50 values that are relevant for classification:***		
Oral	*LD50*	*>5000 gm/kg (rat)*
Dermal	*LD50*	*8000mg/kg (24 hours occluded) (rabbit)*

· ***Primary irritant effect:***
· ***on the skin:***
Skin irritation to rabbit
Animal species:Rabbit/New Zealand White
Type of coverage:semiocclusive
Irritation parameter:primary dermal irritation index (PDII)
Score:0
AVERAGE SCORE
- Erythema: Erythema (grade 1) observed at 1 hour after removal of dressings. All scores at other time points 0.
- Oedema: No oedema observed.
Result:The producr is non-irritating to rabbit skin
· ***on the eye:***
Eye irritation
Animal/ species:New Zealand White rabbit
Duration of treatment / exposure :72 hours
Irritation parameter:cornea score
Basis:animal 1
Time pointmean: 24,48,72h
Score:0.3
Irritation parameter: Iridial inflammation
Basis:animal 1
Time point :mean 24,48,72h

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Trade name: ***Ginol 16 (95 %) (Cetyl Alcohol) (Hexadecan 1 Ol)***

Score :0
Result:Non irritating to eye ograbbit
· ***Sensitization:*** *Not sensitising*
· ***Other information (about experimental toxicology):***
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Reproduction toxicity;
Species/Strain:dog/Beagle
Route:Oral
NOAEL:> 1054 mg/kg bw/day
Species/Strain:Albino rat/male/female
NOAEL(male):1822 mg/kg bw/day
NOAEL(female):4567 mg/kg bw/day
Species/Strain:Sprague-Dawley rat male/female
Route:Oral
NOAEL(male/female):1000 mg/kg bw/day
· ***Additional toxicological information:***
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The substance is not subject to classification.

· ***Carcinogenic categories***
· ***IARC (International Agency for Research on Cancer)*** *Substance is not listed.*
· ***NTP (National Toxicology Program)*** *Substance is not listed.*
· ***OSHA-Ca (Occupational Safety & Health Administration)*** *Substance is not listed.*

12 Ecological information

· ***Toxicity***

· ***Aquatic toxicity:***	
EC 50	*676 mg/ L/ 72 Hr (Scenedesmus subspicatus (green algae)) (Effect: cell multiplication inhibition test)*
	Effects seen >LOS (Algae)
EL50 96 h	*>980 mg/L (n, > LoS) (Scenedesmus subspicatus (green algae))*
LC 50 (96 Hr)	*>0.4 mg/L (n)(>LoS) (Fish Onchorhynchus mykiss(Rainbow trout))*

· ***Persistence and degradability*** *The substance is readily biodegradable in water*
· ***Bioaccumulative potential***
Bioaccumulation:
Bioconcentration factor (BCF) = 56 [Golden orfe fish (Leuciscus idus melanotus)], BCF <2000 L/kg, hence Not Bioaccumulative
· ***Mobility in soil***
Mobility:
The Koc of 1-hexadecanol is 25,000(estimated), this estimated Koc value suggests that 1-hexadecanol is expected to be immobile in soil.
· ***Ecotoxical effects:***
· ***Remark:***
Water solubility = 0.013 mg/L at 25 °C
(n) based on nominal concentrations (>LoS): EC50 observed was greater than the limit of solubility of at least some constituents of the substance.
· ***Additional ecological information:***
· ***General notes:*** *Generally not hazardous for water*
· ***Results of PBT and vPvB assessment***
· ***PBT:*** *The substance is not PBT.*
· ***vPvB:*** *Not vPvB*
· ***Other adverse effects*** *No further relevant information available.*

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13 Disposal considerations

· ***Waste treatment methods***
a) The product should not get into any kind of water without treatment. Dissolved in water, the material
iseasily biodegradeable (90%) and will not cause any disturbance in wastewater-treatment plants. Due to itslow solubility in water, larger amounts need to be eliminated by separators, such as those used for fats andoils.
b)Disposal of small amounts of waste material to be done in accordance with federal, state and local environmental regulations.
c)Larger amounts should be collected as described in section 6 and used for recycling crude raw materials.
· ***Recommendation:***
1)Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix thematerial with a combustible solvent and burn in a chemical incinerator equipped with an afterburner andscrubber. Observe all federal, state, and local environmental regulations.
2)Can be incinerated, when in compliance with local regulations.
· ***Waste disposal key:***
i)Disposal of small amounts of waste material to be done in accordance with federal, state and local environmental regulations.
ii)Larger amounts should be collected as described in section 6 and used for recycling crude raw materials.

· ***Uncleaned packagings:***
· ***Recommendation:*** *Dispose of as unused product.*

14 Transport information

· ***UN-Number***	
· ***DOT, ADR, ADN, IMDG, IATA***	*Not applicable.*
· ***UN proper shipping name***	
· ***DOT, ADR, ADN, IMDG, IATA***	*Not applicable.*
· ***Transport hazard class(es)***	
· ***DOT, ADR, ADN, IMDG, IATA***	
· ***Class***	*Not applicable.*
· ***Packing group***	
· ***DOT, ADR, IMDG, IATA***	*Not applicable.*
· ***Environmental hazards:***	
· ***Marine pollutant:***	*No*
· ***Special precautions for user***	*Not applicable.*
· ***Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code***	*Not applicable.*
· ***Transport/Additional information:***	
· ***DOT***	
· ***Quantity limitations***	*On passenger aircraft/rail: No limit* *On cargo aircraft only: No limit*
· ***UN "Model Regulation":***	-

15 Regulatory information

· ***Safety, health and environmental regulations/legislation specific for the substance or mixture***
· ***Sara***
· ***Section 355 (extremely hazardous substances):*** *Substance is not listed.*
· ***Section 313 (Specific toxic chemical listings):*** *Substance is not listed.*

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Trade name: Ginol 16 (95 %) (Cetyl Alcohol) (Hexadecan 1 Ol)

· ***TSCA (Toxic Substances Control Act):*** *Substance is listed.*
· ***Proposition 65***
· ***Chemicals known to cause cancer:*** *Substance is not listed.*
· ***Chemicals known to cause reproductive toxicity for females:*** *Substance is not listed.*
· ***Chemicals known to cause reproductive toxicity for males:*** *Substance is not listed.*
· ***Chemicals known to cause developmental toxicity:*** *Substance is not listed.*

· ***Carcinogenic categories***
· ***EPA (Environmental Protection Agency)*** *Substance is not listed.*
· ***TLV (Threshold Limit Value established by ACGIH)*** *Substance is not listed.*
· ***NIOSH-Ca (National Institute for Occupational Safety and Health)*** *Substance is not listed.*

· ***Product related hazard informations:***
Observe the general safety regulations when handling chemicals.

· ***National regulations:***

· ***Other regulations, limitations and prohibitive regulations***
US-TSCA - Listed
Japan MITI - Listed
New Zealand (NZioC) - Listed
Australian Inventory of Chemical Substances (AICS) - Listed
Philippine Inventory of Chemicals and Chemical Substances (PICCS) - Listed
China (IECSC) - Listed
Environmental Canada(DSL)-Listed
· ***Chemical safety assessment:***
A Chemical Safety Assesment shall be carried out at the time of REACH Registration.

16 Other information

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

· ***Department issuing SDS:*** *Product safety department.*
· · ***Contact: Mr. RV Dubhashi***
Akshay Bhavsar
Tel no. ***022-25194768***
Email: rv.dubhashi@godrejinds.com ,
ap.bhavsar@godrejinds.com
· ***Date of last revision*** *01/04/2019*
· ***Abbreviations and acronyms:***
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the
International Transport of Dangerous
Goods by Rail) ICAO: International Civil
Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International
Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial
Hygienists EINECS: European Inventory of Existing Commercial
Chemical Substances CAS: Chemical Abstracts Service (division
of the American Chemical Society) NFPA: National Fire
Protection Association (USA)
HMIS: Hazardous Materials Identification
System (USA) LC50: Lethal concentration, 50
percent
LD50: Lethal dose, 50 percent
· ***Sources***
Occupational Safety & Health Administration (OSHA)
https://www.osha.gov/Publications/OSHA3514.html
ECHA-registered substances
http://apps.echa.europa.eu/registered/data/dossiers/DISS-a2174699-67cd-2015-e044-00144f67d031/ DISSa2174699-67cd-2015-e044-00144f67d031 DISS-a2174699-67cd-2015-e044-00144f67d031.html CHEMICAL SAFETY REPORT (CSR)– C6-24 ALCOHOLS CATEGORY.
HSDB: http://toxnet.nlm.nih.gov/cgi-bin/sis/search/f?./temp/~NCt6Vb:1

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Chemidplus:
http://chem.sis.nlm.nih.gov/chemidplus/ProxyServletobjectHandle=Search&actionHandle=getAll3DMViewFiles&nextPage=jsp%2Fcommon%2FChemFull.jsp%3FcalledFrom%3Dlite&chemid=0036653824&formatType= 3D

· **** Data compared to the previous version altered.***
•Section 1:Identification of the substance/mixture and of the company/undertaking
•Section 2:Hazard Identification
•Section 3:Composition/information on ingredients
•Section 4: First-aid measures.
•Section 5: Fire-fighting measures
•Section 6: Accidental Release measures
•Section 7: Handling and storage.
•Section 8: Exposure Controls/Personal protection.
•Section 9: Physical and Chemical properties.
•Section 10: Stability and Reactivity.
•Section 11: Toxicological Information.
•Section 12: Ecological Information.
•Section 13: Disposal consideration
•Section 14: Transport information
•Section 15: Regulatory information
•Section 16:Other information