

Jotun Accelerator CO1P

Section 1. Identification

GHS product identifier : Jotun Accelerator CO1P

Other means of identification : Not available.

Product code : 21800

Product description : Hardener.

Product type : Liquid.

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

Identified uses

Use in coatings - Industrial use
Use in coatings - Professional use

Manufacturing country : Jotun Thailand Limited

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Section 2. Hazards identification

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 4 SKIN SENSITISATION - Category 1A REPRODUCTIVE TOXICITY - Category 1

SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

GHS label elements

Hazard pictograms :





Signal word : Danger.

Hazard statements : H227 - Combustible liquid.

H317 - May cause an allergic skin reaction. H360 - May damage fertility or the unborn child.

H401 - Toxic to aquatic life.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

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Section 2 Hazards identification

Prevention : P201 - Obtain special instructions before use.

P281 - Use personal protective equipment as required.

P280 - Wear protective gloves.

P210 - Keep away from flames and hot surfaces. No smoking.

P273 - Avoid release to the environment.

P261 - Avoid breathing vapour.

: P308 + P313 - IF exposed or concerned: Get medical advice or attention. Response

> P363 - Wash contaminated clothing before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.

: P403 + P235 - Store in a well-ventilated place. Keep cool. Storage

: P501 - Dispose of contents and container in accordance with all local, regional, Disposal

national and international regulations.

Other hazards which do not result in classification

: None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.

EC number : Mixture. Product code : 21800

Ingredient name	%	CAS number
	≥90	6846-50-0
ester		
hexanoic acid, 2-ethyl-, cobalt(2+) salt	<10	136-52-7
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	≤5	64742-48-9
2-ethylhexanoic acid	≤0.3	149-57-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

Inhalation

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10

minutes. Get medical attention.

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or

waistband.

Skin contact Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before

reuse. Clean shoes thoroughly before reuse.

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Section 4. First aid measures

Ingestion

: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contactInhalationNo known significant effects or critical hazards.No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact : Adverse symptoms may include the following:

irritation redness

reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

: No specific treatment.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

Specific hazards arising from the chemical

: Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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Section 5. Firefighting measures

Hazardous thermal decomposition products

Decomposition products may include the following materials: carbon dioxide carbon monoxide

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

 Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

metal oxide/oxides

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
hexanoic acid, 2-ethyl-, cobalt(2+) salt	ACGIH TLV (United States, 1/2022). [cobalt and inorganic compounds as Co] Skin sensitiser. Inhalation sensitiser. TWA: 0.02 mg/m³, (as Co) 8 hours.
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	ACGIH TLV (United States, 1/2005). Notes: Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124):36338-33351, June 30, 1993, for revised OSHA PEL.
2-ethylhexanoic acid	TWA: 525 mg/m³ 8 hours. Form: All forms TWA: 100 ppm 8 hours. Form: All forms ACGIH TLV (United States, 1/2022). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction and vapor

Recommended monitoring procedures

: Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

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Section 8. Exposure controls/personal protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to ISO 374-1:2016.

Recommended, gloves(breakthrough time) > 8 hours: neoprene (> 0.35 mm), butyl rubber (> 0.4 mm), nitrile rubber (> 0.4 mm), Viton® (> 0.7 mm), polyvinyl alcohol (PVA) (> 0.3 mm)

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.
Colour : Violet.

Odour : Characteristic.
Odour threshold : Not available.
pH : Not applicable.
Melting point : Not applicable.

Boiling point : Lowest known value: 155 to 217°C (311 to 422.6°F)(hydrocarbons, C10-C13, n-

alkanes, isoalkanes, cyclics, < 2% aromatics).

Flash point : Closed cup: 82°C (179.6°F)

Burning time : Not applicable.

Burning rate : Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Not applicable.

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Section 9. Physical and chemical properties

Lower and upper explosive

(flammable) limits

: 1.4 - 7.6%

Vapour pressure

: Highest known value: 0.1 to 0.3 kPa (0.8 to 2.3 mm Hg) (at 20°C) (hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics). Weighted average: 0.009 kPa (0.07 mm Hg) (at 20°C)

Vapour density : Not available. Relative density : 0.95 g/cm³

Solubility : Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/

water

: Not available.

Auto-ignition temperature

: Lowest known value: 280 to 470°C (536 to 878°F) (hydrocarbons, C10-C13, nalkanes, isoalkanes, cyclics, < 2% aromatics).

Decomposition temperature

SADT

: Not available. : Not available.

Viscosity

: Kinematic (40°C): >20.5 mm²/s (>20.5 cSt)

Aerosol product

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

: The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials

: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
hexanoic acid, 2-ethyl-, cobalt(2+) salt	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
2-ethylhexanoic acid	Eyes - Severe irritant Skin - Mild irritant	Rabbit Rabbit	-	20 milligrams 450 milligrams	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
hexanoic acid, 2-ethyl-, cobalt(2+) salt	skin	Mammal - species unspecified	Sensitising

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

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Section 11. Toxicological information

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	ASPIRATION HAZARD - Category 1

Potential acute health effects

Eye contactInhalationNo known significant effects or critical hazards.No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact : Adverse symptoms may include the following:

irritation redness

reduced foetal weight increase in foetal deaths skeletal malformations

Eye contact : No specific data.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

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Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
hexanoic acid, 2-ethyl-, cobalt(2+) salt	Acute LC50 1.5 mg/l	Fish	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
propanoic acid, 2-methyl-, 2,2-dimethyl-1-	-	5340	high
(1-methylethyl) -1,3-propanediyl ester			
hexanoic acid, 2-ethyl-, cobalt(2+) salt	-	15600	high
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	-	10 to 2500	high
2-ethylhexanoic acid	2.7	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC})

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-

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Section 14. Transport information

Packing group	-	-	-
Environmental hazards	No.	No.	No.
Special precautions for user	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Additional information	-	-	-

Transport in bulk according to : Not available.

IMO instruments

ADR / RID

Section 15. Regulatory information

Hazardous Substance Act B.E. 2535 (1992)

Type

Ingredient name Type Authority Conditions

No known specific national and/or regional regulations applicable to this product

(including its ingredients).

Section 16. Other information

History

Date of printing : 01.06.2023

Date of issue/Date of revision : 01.06.2023

Date of previous issue : 24.07.2020

Version : 2.08

Key to abbreviations : ADN = European Provisions concerning the International Carriage of Dangerous

Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

RID = The Regulations concerning the International Carriage of Dangerous Goods

by Rail

UN = United Nations

LogPow = logarithm of the octanol/water partition coefficient

References : Not available.

✓ Indicates information that has changed from previously issued version.

Notice to reader

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Section 16. Other information

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.

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