

RESTRICTED USE AGRICULTURAL REMEDY: THIS REMEDY IS RESTRICTED DUE TO INCLUSION ON ANNEX III OF THE ROTTERDAM CONVENTION. THIS REMEDY MAY ONLY BE SOLD TO AND USED BY A REGISTERED PEST CONTROL OPERATOR, OR BY SOMEONE UNDER THE SUPERVISION OF A REGISTERED PEST CONTROL OPERATOR, AND ONLY FOR THOSE USES COVERED BY THE PEST CONTROL OPERATOR'S SCOPE OF REGISTRATION, AND ONLY AS DIRECTED ON THIS LABEL.

ALANEX® 384 EC


Reg. no. L4725 Act/Wet 36 of/van 1947
N-AR 0485

**READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**



GROUP	15	HERBICIDE
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<p>A pre-emergence emulsifiable concentrate weed killer for the control of most annual grasses and certain broadleaf weeds in maize, sweetcorn, groundnuts, soybeans, drybeans, sunflower, transplanted cabbage, broccoli, brussels sprouts, potatoes, sugarcane, pineapples and sorghum (grain and forage).</p>	<p>'n Vooropkom-, emulgeerbare konsentraat onkruidodder vir die beheer van die meeste eenjarige grasse en sekere breëblaaronkruid in mielies, suikermielies, grondbone, sojabone, droëbone, sonneblomme, aartappels, pyn-appels, uitgeplante kopkool, brokkoli, spruit-kool, suikerriet en sorghum (graan en voer).</p>
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 <p>WARNING</p>	<p>Hazard statements Flammable liquid and vapour. Harmful if swallowed. Causes skin irritation. May cause allergic skin reaction. Causes serious eye irritation. Suspected of causing cancer. Very toxic to aquatic life with long lasting effects.</p> <p>Precautionary statements Use explosion-proof electrical/ventilation/ lighting and other equipment. Wear protective gloves, protective clothing, and eye and face protection</p>
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ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

Alachlor (α-chloroacetanilide) 384 g/L Alachlor (α-chloorasetanilied)

NET VOLUME/NETTO VOLUME

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REGISTRATION HOLDER/REGISTRASIEHOUER
ADAMA South Africa (Pty) Ltd; Reg. no. 1992/001741/07
Ground Floor, Simeka House
The Vineyard Office Estate, 99 Jip de Jager Drive
Bellville, 7530
T: +27 21 982 1460, infocpt@adama.com

IN CASE OF POISONING, CALL THE FOLLOWING NUMBERS:
Griffon Poison Information Centre:
+27 82 446 8946 or
Tygerberg Poison Information Centre:
+27 861 555 777
EMERGENCY NUMBER:
SPILL TECH: +27 86 100 6366 or +27 83 253 6618

UN no.: 1993

Batch number
Date of Manufacture
Expiry date

Lotnommer
Datum van Vervaardiging
Vervaldatum



GHS information

WARNINGS

- Flammable liquid and vapour.
 - Harmful if swallowed.
 - Causes skin irritation.
 - May cause allergic skin reaction.
 - Causes serious eye irritation.
 - Suspected of causing cancer.
 - Very toxic to aquatic life with long lasting effects.
- Store in a cool, dry place.
 - Store away from food, feed, seed, fertilizers and other agricultural chemicals.
 - Keep out of reach of children, animals and uninformed persons.
 - RE-ENTRY INTERVAL: Do not enter treated area within 1 day after treatment unless wearing protective clothing.
 - AERIAL APPLICATION WARNING: Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; quality of dilution water; compatibility with other substances not indicated on the label and the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damages to crops, vegetation, and the environment or harm to humans or animals or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

PREVENTION

- Obtain, read and follow all safety instructions before use.
- Wear protective gloves, protective clothing, and eye and face protection.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
- Ground or bond container and receiving equipment and take action to prevent static discharge.
- Use explosion-proof electrical/ventilation/ lighting/other equipment and non-sparking tools.
- Keep container tightly closed.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Do not eat, drink or smoke when using this product.
- Wash hands and face thoroughly after handling. Do not touch eyes.

- Contaminated work clothing should not be allowed out of the workplace.

RESPONSE

- If exposed or concerned, get medical advice.
- IF SWALLOWED: Rinse mouth and get medical help.
- IF ON SKIN OR HAIR: Take off immediately all contaminated clothing. Rinse affected area/s with plenty of water under the safety shower. If skin irritation occurs: Get medical help.
- Wash contaminated clothing before use.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical help.
- In case of fire, use the available equipment to extinguish the fire.

STORAGE

- Store locked up in a well-ventilated place and keep cool.

- Prevent contamination of food, feed, drinking water and eating utensils.
- Prevent drift and/or contamination onto susceptible or edible crops, grazing, rivers, dams or any other areas not under treatment.
- TRIPLE RINSE empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10% of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za).
- Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.

RELEVANT SUBSTANCES

Chemical name	Weight %	CAS no.
Alachlor	35.3%	15972-60-8
Xylene	30–60%	1330-20-7
Ethyl Benzene	< 10%	100-41-4
Calcium Dodecyl Benzene Sulphonate	< 10%	90194-26-7

FIRST AID

Acute exposure to **ALANEX® 384 EC** may require decontamination and life support for the victims. Provide this label and SDS to medical personnel for treatment. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination.

Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm and covered up. First Aid personnel should pay attention to their own safety. Take the container label or product name with you when seeking medical attention.

Eye contact: Immediately rinse/flush the eyes gently with water from the eye wash fountain for several minutes (at least 15 minutes), while holding the eyelids apart. Check for and remove contact lenses if easy to do so. Continue rinsing. Obtain medical attention if irritation occurs and persists.

Skin contact: Remove all contaminated clothing and shoes. Rinse the skin immediately with plenty of water for 15 to 20 minutes under the safety shower. Contact a poison control centre or medical practitioner if irritation occurs or persists. Wash contaminated clothing before re-use.

Inhalation: Immediately remove the affected victim from exposure to an area with fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain immediate medical attention.

Ingestion: Obtain immediate medical attention - call a poison control center or medical practitioner immediately for treatment advice. If conscious, rinse mouth thoroughly with water. Never give anything by mouth to an unconscious or convulsing person. Do not induce vomiting unless directed to do so by a medical professional. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits, rinse mouth and administer more water.

TOXICOLOGICAL INFORMATION

Antidotes

No specific antidote. Treat symptomatically and supportively.

Symptoms of human poisoning

Acute health effects: Symptoms of exposure to the product could include redness and pain to the skin and eyes. Nausea and vomiting.

Long-term effects: Skin sensitization, liver toxicity and irreversible eye lesions.

RESISTANCE WARNING

ALANEX® 384 EC is a group code 15 Herbicide. Any weed population may contain individuals naturally resistant to **ALANEX® 384 EC** and other group code 15 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **ALANEX® 384 EC** or any other group code 15 herbicide.

To delay herbicide resistance:

- Avoid exclusive repeated use of herbicides from the same herbicide group code.
- Alternate or tank mix with products from different herbicide group codes.
- Integrate other control methods (chemical, cultural, biological) into weed control programs.

For specific information on resistance management contact the registration holder of this product.

MODE OF ACTION

Inhibition of very long-chain fatty acid synthesis.

Seedling shoot-growth inhibitors applied to the soil before emergence of weeds.

RESTRICTED USES

Use only as directed.

NOTICE TO THE USER: This agricultural remedy is to be used only in accordance with the directions of this label. It is an offense under the Act to use this product inconsistent with the directions on the label.

GENERAL INFORMATION

- Ensure accurately calibrated equipment.
- **A deep plough, just prior to planting is essential for:**
 - a) Improved control of *Cyperus esculentus* (yellow nutsedge). See paragraph on VARIABLE WEED CONTROL at the end of this label.
 - b) Breaking of compaction layers which could lead to waterlogged soil and subsequent possible damage to maize following heavy rain.
- Prepare a fine even seedbed free of weeds, trash and clods.
- Do not apply **ALANEX® 384 EC** to inbred parent plants of maize hybrids or onto experimental or newly released cultivars, without first referring to the manufacturers or seed suppliers.
- Do not apply to poorly drained soils. Water logging in the presence of herbicides could cause stand reduction and/or stunted growth.
- Do not apply **ALANEX® 384 EC** to sandy soils that is subjected to wind erosion.
- Before using **ALANEX® 384 EC** in combination with other herbicides, read the labels and adhere to label recommendations.
- Flood irrigation can reduce weed control efficacy.

MIXING INSTRUCTIONS

- Shake container well before use.
- Close container securely after use.
- To a spray tank half filled with clean water, add the required amount of **ALANEX® 384 EC** while maintaining agitation.
- Complete filling operation.

When mixing **ALANEX® 384 EC** with other registered herbicides, use the following procedure:

- Fill spray tank three quarters with clean water.
- Add required amount of complementary herbicide to the water while agitating continuously.
- Add **ALANEX® 384 EC** just before the tank is filled to its full level.
- Ensure thorough agitation of the mixture in the tank during mixing and spraying.
- Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.
- Thoroughly flush out spraying equipment at the end of the spraying operation.

APPLICATION

General

- Apply **ALANEX® 384 EC** with planting or immediately after planting, but not later than two days after planting. Use 200 L/ha total mix for overall ground application and 30–40 L/ha for aerial application.
- Between 10–15 mm rain within 7 to 10 days after application is necessary to ensure good efficacy.
- Under dry conditions, weed seedlings may emerge. These are usually stunted and can be controlled with a shallow cultivation, which also mixes the herbicide with the top 10–20 mm of soil.
- If soil crusting becomes a problem, rotary harrow in the same direction the rows are planted, to assist maize germination. Harrowing after application may reduce weed control if untreated soil is thrown into deep planter furrows.
- Ensure that sufficient fertilizer is placed near the seed at planting to promote vigorous seedling growth.
- Ensure equipment is accurately calibrated and regularly checked before and during application.

Aerial application

ALANEX® 384 EC must not be applied from the air to maize.

Ensure that the final spray deposit on the ground equals the recommended application rate and that the distribution of the material over the swath width is uniform.

Aerial application of **ALANEX® 384 EC** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SABS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- Volume: A spray mixture volume of 30 – 40 L/ha is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended above.
- Droplet coverage: 25 – 35 droplets/cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 350 – 400 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3 – 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable atomising equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 – 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8 °C.
- Stop spraying if the wind speed exceeds 15 km/h.

- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - a) Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - b) Damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

APPLICATION RATES

MAIZE

Pre-emergence to crop and weeds

Applications must be made at planting or not later than two days after planting. Use the correct rates for different tow and band widths.

To increase the spectrum of broadleaf weeds controlled in maize only tank mixtures with atrazine suspension concentrates are recommended.

CLAY %	ALANEX®384 EC (L/ha)	ATRAZINE®500 SC (L/ha)	REMARKS
0 – 10	4.0*	1.75 – 2.25	When a short soil persistence is required in view of follow-up crops, use only 1.5 L/ha ATRAZINE® 500 SC on soils up to 35% clay and 2.0 L/ha ATRAZINE® 500 SC on soils over 35% clay. (See “NOTE” below)
11 – 16	4.0*	2.50	
17 – 20	4.5	2.75	
21 – 35	5.0	2.75 – 3.25	
36 +	5.0	4.0	

NOTE (*): On soils of 0 to 10% clay in the North West Province and northern Free State use the recommendations below.

For specific annual grass and broadleaf control in maize

For use on soils of 0–20% clay (including soils of 0–10% clay in the North West Province and northern Free State) only. Apply the required rate of **ALANEX® 384 EC** after planting of the crop and pre-emergence of the crop and weeds either in a tank mix with the required atrazine SC rate or alone, followed by atrazine SC applied early post-emergence of the weeds.

WEED	ALANEX® 384 EC (L/ha)	ATRAZINE® 500 SC (L/ha)
<i>Elusine indica</i> goose grass	2.0*	2.0 – 3.25 Depending on soil type
<i>Chloris virgate</i> Chloris feathertop		
<i>Digitaria sanguinalis</i>** crab fingergrass	3.0*	2.5 – 3.25 Depending on soil type
<i>Urochloa panicoides</i> herringbone grass		
<i>Panicum schinzii</i> sweet buffalo grass		

NOTE:

* Nutsedges (*Cyperus esculentus*) will not be controlled at these rates.

In areas of known high *Digitaria sanguinalis* (crab finger grass) infestations, it is recommended to use **ALANEX® 384 EC at 4.0 to 5.0 L/ha in a tank mix with atrazine SC as recommended (excluding soils of 0 to 10% clay in the North West Province and northern Free State). For use on soils over 20% clay use **ALANEX® 384 EC** at 5 L/ha as recommended above.

Apply **ALANEX® 384 EC** at 3.0 L/ha in a tank mix with atrazine SC according to the above recommendations up to 4 weeks after planting the maize.

Emerged weeds should be destroyed with a shallow cultivation (less than 3 cm deep) prior to the **ALANEX® 384 EC** and atrazine SC treatment.

Where the crop has emerged, spraying should be directed between the crop rows and not over the crop.

Do not apply the **ALANEX® 384 EC** treatment in under 200 L water per ha.

NOTE: atrazine SC mixed with **ALANEX® 384 EC** results in soil persistent residues.

Do not plant atrazine sensitive crops before the time stated on the atrazine SC label.

However, if the rate of atrazine SC was 1.5 L/ha, then the waiting period is only 6 months and if 2.0 L/ha is used the waiting period is 9 months for the following crops:

Grain sorghum, Feed sorghum, Potatoes, Sunflowers, Dry beans, Groundnuts, Soybeans and Cereals.

If **ALANEX® 384 EC** plus atrazine SC tank mixtures are applied onto turf soils (soils which expand when wet and crack and crumble when dry), then the atrazine SC may remain active much longer in the soil than the above-mentioned waiting periods.

Do not use **ALANEX® 384 EC** plus atrazine SC tank mixtures on these soils if it is anticipated that an atrazine SC sensitive crop is to be planted in rotation.

SWEETCORN

ALANEX® 384 EC can be applied as a post plant pre-emergence treatment. Sweetcorn cultivars exhibit a wide variation in tolerance to **ALANEX® 384 EC** and only those cultivars known to be tolerant should be treated. Consult your seed supplier and/or representative before treating sweetcorn with **ALANEX® 384 EC**.

CLAY %	ALANEX® 384 EC (L/ha)
0–10	Not recommended
11–15	4.0
16–20	4.5
21–35	5.0
> 35	Not recommended

SUGARCANE

Pre-emergence in respect of weeds

Apply 5.0 – 6.0 L/ha **ALANEX® 384 EC**: If it is anticipated that *Panicum maximum* (from seed only) is expected to be a major problem then the higher rate should be used.

For the control of a broad spectrum of broadleaf weeds and annual grasses, MCPA or atrazine can be added to the above rates of **ALANEX® 384 EC** as follows:

PRODUCT	DOSAGE
MCPA (potassium salts) (400 g/L)	4.0 L/ha
ATRAZINE® 500 SC	2.0 L/ha: Sandy to sandy clay loam soil (up to 35 % clay)
ATRAZINE® 500 SC	3.0 L/ha: Sandy clays to heavier clay (above 35 % clay)

Early post-emergence in respect of weeds

ALANEX® 384 EC combinations for plant and ratoon cane:

Very early post-emergence of weeds/ha	6 L ALANEX® 384 EC + 2.5 kg DIURON + 1.25 L ERASE	6 L ALANEX® 384 EC + 2 to 3 L atrazine SC+ 1 to 2 L GRAMOXONE (*)
(*) Apply GRAMOXONE before the second leaf has unfurled		

The **ALANEX® 384 EC** plus DIURON plus ERASE combination provides control of *Cyperus esculentus*, annual grasses and broadleaf weeds.

POTATOES

Pre-emergence in respect of weeds

Apply 4.0–5.0 L/ha **ALANEX® 384 EC**: Unless irrigated, apply pre-emergence to potatoes and weeds, after the first summer rains. Use the lower rate on lighter soils (0 to 16% clay).

Early post-emergence herbicide

ALANEX® 384 EC is a pre-emergence herbicide.

However, for an early post-emergence application, after the first summer rains (unless irrigated), add GRAMOXONE at 1.0–2.0 L/ha.

GRAMOXONE/ALANEX® 384 EC MUST NOT BE APPLIED AFTER 10% POTATO EMERGENCE.

GROUNDNUTS AND SOYABEANS

Pre-emergence of weeds and crop

Apply 4.0 – 5.0 L/ha **ALANEX® 384 EC** at planting or not later than 2 days after planting. Use the lower rate on lighter soils (0 – 16% clay).

DRYBEANS

Apply pre-emergence of the crop and weeds within 2 days of planting.

CLAY %	ALANEX® 384 EC (L/ha)	REMARKS
0 – 10	3.0	Most annual grasses as listed will be controlled. Control of <i>Digitaria</i> spp., <i>Panicum</i> spp, and broadleaf weeds will be variable. <i>Cyperus esculentus</i> will not be well controlled at these rates.
11 – 20	3.5	
>20	4.0	

WARNING: Cold, wet conditions between application and emergence or early growth of dry beans may lead to temporary leaf crinkling, leaf burn and stunting.

SUNFLOWERS

Apply pre-emergence of weeds and crops at 4.0–5.0 L/ha depending on soil type.

Use 4.0 L/ha on lighter soils (0 to 16% clay).

TRANSPLANTED CABBAGE, BROCCOLI (LATE CORONA AND PREMIUM CROP) AND BRUSSELS SPROUTS (JADE CROSS)

Pre-emergence of weeds after crop transplant

Apply **ALANEX® 384 EC** at 4.0–5.0 L/ha: Apply as soon as possible after the first post-transplanted irrigation and pre-emergence of the weeds.

Use 4.0 L/ha on lighter soils (0–16% clay).

PINEAPPLES

Apply **ALANEX® 384 EC** at 4.0–5.0 L/ha pre-emergence of weeds.

Use 4.0 L/ha on light soils (0–16% clay).

GRAIN AND FORAGE SORGHUM

ALANEX® 384 EC may be applied as an after-plant, pre-emergent treatment in grain and forage sorghum provided the seed has been treated with a seed SCREEN seed safener according to label instructions.

CLAY %	ALANEX® 384 EC (L/ha)
0–10	Not recommended
11–15	4.0
16–20	4.5
21–50	5.0

WEEDS CONTROLLED BY ALANEX® 384 EC

GRASSES

Botanical name	Common name
<i>Brachiaria eruciformis</i>	sweet signal-grass
<i>Chloris virgata</i>	feathertop Chloris
<i>Digitaria sanguinalis</i>	crab fingergrass
<i>Echinochloa crus-galli</i>	barnyard grass
<i>Panicum maximum</i>	common buffalo grass
<i>Panicum schinzii</i>	sweet buffalo grass
<i>Setaria pallide-fusca</i>	red bristle grass
<i>Setaria verticillata</i>	sticky bristle grass
<i>Tragus racemosus</i>	large carrotseed grass
<i>Urochloa panicoides</i>	herringbone grass

BROADLEAF WEEDS

Botanical name	Common name
<i>Amaranthus hybridus</i>	Cape pigweed
<i>Amaranthus spinosus</i>	thorny pigweed
<i>Amaranthus thunbergii</i>	red pigweed
<i>Galinsoga parviflora</i>	Gallant soldier
<i>Portulaca oleracea</i>	purslane
<i>Sonchus oleracea</i>	common sowthistle

VARIABLE CONTROL

Botanical name	Common name
<i>Anthemis cotula</i>	stink mayweed
<i>Bidens formosa</i>	cosmos
<i>Chenopodium album</i>	white goosefoot
<i>Chenopodium carinatum</i>	green goosefoot
<i>Cleome monophylla</i>	spindlepod
<i>Commelina benghalensis</i>	Bengal wandering Jew
<i>Cyperus esculentus</i> *	yellow nutsedge
<i>Datura ferox</i> **	large thorn apple (early germinating)
<i>Datura stramonium</i> **	common thorn apple (early germinating)
<i>Stellaria media</i>	chickweed (Starwort)
<i>Tagetes minuta</i> **	tall khaki weed (early germinating)

IMPORTANT: This product controls annual weeds. Other annual weeds that were not present during the development trials with the product, may possible also be controlled to a certain degree. The registration holder does not accept any responsibility for unlisted weeds.

GRAMOXONE (L1174) is the registered tradename of Syngenta Crop Protection.

ERASE (L2352) is the registered tradename of Applied Agricultural Products (Pty) Ltd.

DIURON – SANCHEM DIURON 800 SC (L3200)

MCPA (potassium salt) – MCPA 400 SL (L3616)